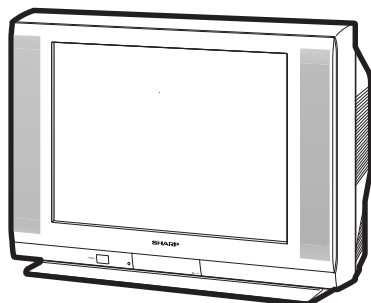


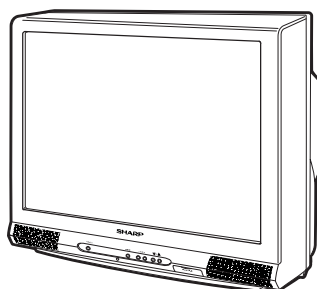
SHARP

SERVICE MANUAL

S13W527F630//



32F630



32F631

COLOR TELEVISION

Chassis No. GB-3U

32F630

32F631

MODELS

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

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ELECTRICAL SPECIFICATIONS

POWER INPUT	120V AC, 60 Hz
POWER RATING	160W
PICTURE SIZE	3074 cm ² (476sq inch)
CONVERGENCE	Magnetic
SWEEP DEFLECTION	Magnetic
FOCUS	Hi-Bi-Potential Electrostatic
INTERMEDIATE FREQUENCIES	
Picture IF Carrier Frequency	45.75 MHz
Sound IF Carrier Frequency	41.25 MHz
Color Sub-Carrier Frequency	42.17 MHz
	(Nominal)

AUDIO POWER
OUTPUT RATING 5.0W + 5.0W (at 10% distortion and
Dual CH Operate)

SPEAKER
 SIZE 12 x 6 cm oval (2 pcs.)
 VOICE COIL IMPEDANCE 8 ohm at 400 Hz

ANTENNA INPUT IMPEDANCE
 VHF/UHF 75 ohm Unbalanced

TUNING RANGES
 VHF-Channels 2 thru 13
 UHF-Channels 14 thru 69
 CATV Channels 1 thru 125
 (EIA, Channel Plan U.S.A.)

Specifications are subject to change without prior notice.

SHARP CORPORATION

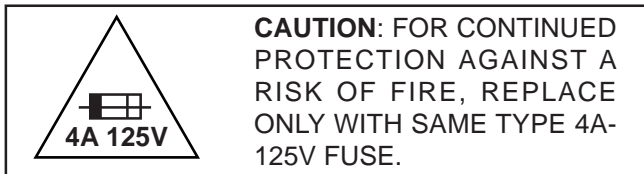
This document has been published to be used for after sales service only.
The contents are subject to change without notice.

IMPORTANT SERVICE SAFETY PRECAUTION

■ Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.
3. Semiconductor heat sinks are potential shock hazards when the chassis is operating.
4. The chassis in this receiver has two ground systems which are separated by insulating material. The non-isolated (hot) ground system is for the B+ voltage regulator circuit. The isolated ground system is for the low B+ DC voltages and the secondary circuit of the high voltage transformer.
To prevent electrical shock use an isolation transformer between the line cord and power receptacle, when servicing this chassis.



SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove the static charge by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the picture tube ground and the anode lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage anode completely.

X-RADIATION AND HIGH VOLTAGE LIMITS

1. Be sure all service personnel are aware of the procedures and instructions covering X-radiation. The only potential source of X-ray in current solid state TV receivers is the picture tube. However, the picture tube does not emit measurable X-Ray radiation, if the high voltage is as specified in the "High Voltage Check" instructions.
It is only when high voltage is excessive that X-radiation is capable of penetrating the shell of the picture tube including the lead in the glass material. The important precaution is to keep the high voltage below the maximum level specified.
2. It is essential that servicemen have available at all times an accurate high voltage meter.
The calibration of this meter should be checked periodically.
3. High voltage should always be kept at the rated value –no higher. Operation at higher voltages may cause a failure of the picture tube or high voltage circuitry and;also, under certain conditions, may produce radiation in exceeding of desirable levels.
4. When the high voltage regulator is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be tested while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. Do not use a picture tube other than that specified or make unrecommended circuit modifications to the high voltage circuitry.
6. When trouble shooting and taking test measurements on a receiver with excessive high voltage, avoid being unnecessarily close to the receiver.
Do not operate the receiver longer than is necessary to locate the cause of excessive voltage.

IMPORTANT SERVICE SAFETY PRECAUTION

(Continued)

BEFORE RETURNING THE RECEIVER

(Fire & Shock Hazard)

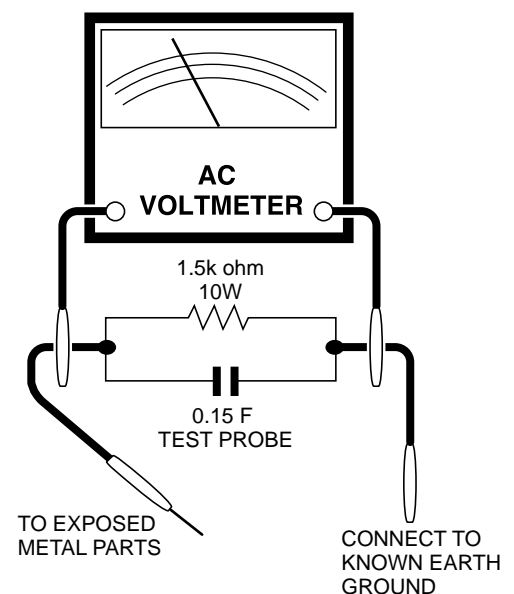
Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - Plug the AC cord directly into a 120 volt AC outlet, (Do not use an isolation transformer for this test).
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to earth ground.
 - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor.

- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC line cord plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these check.)

Any current measured must not exceed 0.5 milliamp. Any measurements not within the limits outlined above indicate of a potential shock hazard and corrective action must be taken before returning the instrument to the customer.



SAFETY NOTICE

Many electrical and mechanical parts in television receivers have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts Lists and Schematic Diagrams.

For continued protection, replacement parts must be identical to those used in the original circuit. The use of substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire, X-radiation or other hazards.

LOCATION OF USER'S CONTROL(32F630)

Front Panel

POWER

Press → On.
Press again → Off.

REMOTE CONTROL SENSOR

MENU

Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU.

VOLUME UP/DOWN

(+) Increases sound.
(-) Decreases sound.

INSIDE DOOR

VIDEO/AUDIO IN 2 TERMINALS

CHANNEL UP/DOWN

(▲) Selects next higher channel.
(▼) Selects next lower channel.

Basic Remote Control Functions

POWER

Press → On.
Press again → Off.

REMOTE KEYPAD

Accesses any channel from keypad.

FLASHBACK

Returns to previous channel.

PERSONAL PREFERENCE

With the Personal Preference buttons, you can program your favorite programs by using the 4 categories A, B, C and D. The channels can be accessed quickly by using these buttons.

VOLUME UP/DOWN

(+) Increases sound.
(-) Decreases sound.
• Changes or selects the TV adjustments on On-Screen Display.

MENU

Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU.

MUTE

Press → Mutes sound.
Press again → Restores sound.
• When sound is muted, CLOSED CAPTION appears if available.

POWER (DVD/VCR)

Press → On.
Press again → Off.

DVD/VCR CONTROL

Infrared Transmitter Window

CATV/DVD-TV/VCR MODE buttons

Press TV/VCR → Signals sent will be for TV and VCR control.
Press CATV/DVD → Signals sent will be for cable TV converter and DVD control.

DISPLAY

Press → Displays receiving channel for 4 seconds.
Press again → Removes display.
• Temporarily displays receiving channel when in Closed Caption mode.

INPUT

Press → Switches to external video INPUT 1 mode.
Press twice → Switches to external video INPUT 2 mode.
Press 3 times → Switches to external video INPUT 3 mode or COMPONENT mode.
Press 4 times → Switches back to the original TV mode.

ENTER

Used in some instances where a Cable Converter Box requires an enter command after selecting channels, when using the REMOTE KEYPAD button.

CHANNEL UP/DOWN

(▲) Selects next higher channel.
(▼) Selects next lower channel.
• Moves the "●" mark on the MENU screens.

SKIP/VCR-CH

REC

Note:

- The above shaded buttons on the Remote Control glow in the dark. To use the glow-in-the-dark display on the remote control, place it under a fluorescent light or other lighting.
- The phosphorescent material contains no radioactive or toxic material, so it is safe to use.
- The degree of illumination will vary depending on the strength of lighting used.
- The degree of illumination will decrease with time and depending on the temperature.
- The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- Sunlight and fluorescent lighting are the most effective when charging the display.

LOCATION OF USER'S CONTROL(32F631)

Front Panel

POWER
Press → On.
Press again → Off.

**REMOTE CONTROL
SENSOR**

MENU
Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU.

VOLUME UP/DOWN
(+) Increases sound.
(-) Decreases sound.

**VIDEO/AUDIO IN 2
TERMINALS
(INSIDE DOOR)**

CHANNEL UP/DOWN
(▲) Selects next higher channel.
(▼) Selects next lower channel.

Basic Remote Control Functions

POWER
Press → On.
Press again → Off.

REMOTE KEYPAD
Accesses any channel from keypad.

FLASHBACK
Returns to previous channel.

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With the Personal Preference buttons, you can program your favorite programs by using the 4 categories A, B, C and D. The channels can be accessed quickly by using these buttons.

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Press → On.
Press again → Off.

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- The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- Sunlight and fluorescent lighting are the most effective when charging the display.

INSTALLATION AND SERVICE INSTRUCTIONS

- Note:** (1) When performing any adjustments to resistor controls and transformers use non-metallic screwdrivers or TV alignment tools.
(2) Before performing adjustments, the TV set must be on at least 15 minutes.

CIRCUIT PROTECTION

The receiver is protected by a 4.0A fuse (F701), mounted on PWB-A, wired into one side of the AC line input.

X-RADIATION PROTECTOR CIRCUIT TEST

After service has been performed on the horizontal deflection system, high voltage system, B+ system, test the X-Radiation protection circuit to ascertain proper operation as follows:

1. Apply 120V AC using a variac transformer for accurate input voltage.
2. Allow for warm up and adjust all customer controls for normal picture and sound.
3. Receive a good local channel.
4. Connect a digital voltmeter to TP651 (Pin 3) and make sure that the voltmeter reads $13.7 \pm 0.6V$ DC.
5. Apply external 17.3V DC at TP651 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord and plug the AC cord power on. Now make sure that normal picture appears on the screen.
7. If the operation of the horizontal oscillator does not stop in step 5, the circuit must be repaired before the set is returned to the customer.

HIGH VOLTAGE CHECK

High voltage is not adjustable but must be checked to verify that the receiver is operating within safe and efficient design limitations as specified checks should be as follows:

1. Connect an accurate high voltage meter between ground and anode of picture tube.
2. Operate receiver for at least 15 minutes at 120V AC line voltage, with a strong air signal or a properly tuned in test signal.
3. Enter the service mode and select the service adjustment "V11" and Bus data "01" (Y-mute on, CRT Cut Off).
4. The voltage should be below 35.0kV (at zero beam). If a correct reading cannot be obtained, check circuitry for malfunctioning components. After the voltage test, make Y-mute off to the normal mode.

For adjustments of this model, the bus data is converted to various analog signals by the D/A converter circuit.

Note: There are still a few analog adjustments in this series such as focus and master screen voltage. Follow the steps below whenever the service adjustment is required. See "Table-B" to determine, if service adjustments are required.

1. Service mode

Before putting unit into the service mode, check that customer adjustments are in the normal mode. Use the reset function in the video adjustment menu to ensure customer controls are in their proper (reset) position.

2. Service number selection

Once in the service mode, press the Ch-up or Ch-down button on the remote controller or at the set. The service adjustment number will vary in increments of one, from "V01" to "P08". Select the item you wish to adjust.

3. Data number selection

Press the Vol-up or Vol-down button to adjust the data number.

To enter the service mode and exit service mode.

To enter the service mode manually just press and hold the Vol-down and Ch-up buttons at the same time, plug the AC cord into a wall socket.

Now the TV set is switched on and enters the service mode.

To exit the service mode, turn the television off by pressing the power button.

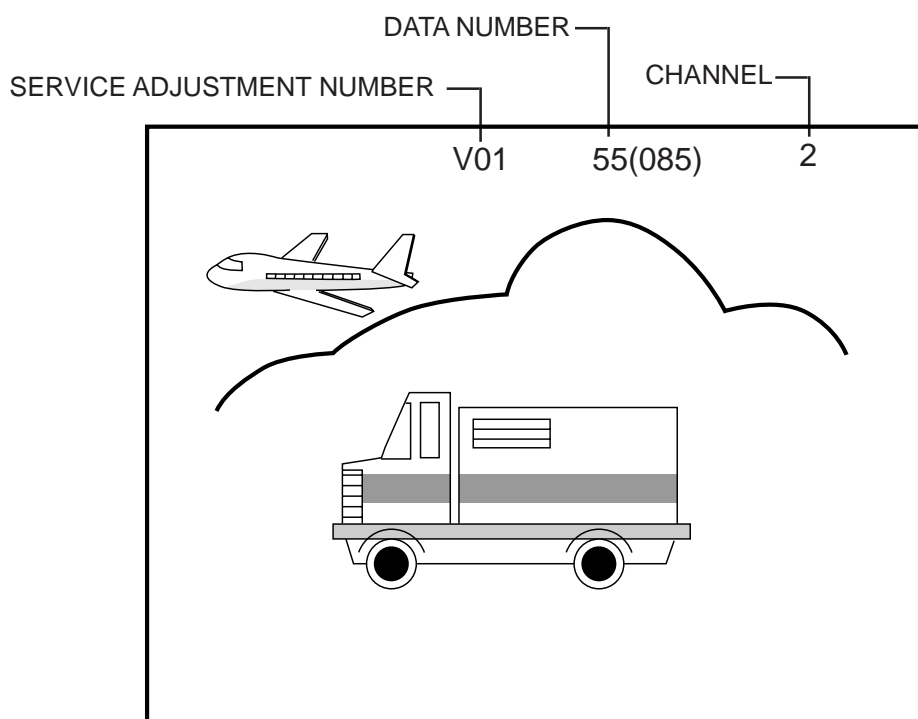


Figure A.

A. VCJ IC ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
V01	PICTURE	0-15 (00h-0Fh)	8 (08h)		
V02	TINT	0-127 (00h-7Fh)	66 (42h)		
V03	COLOR	0-127 (00h-7Fh)	56 (38h)		
V05	BRIGHT	0-127 (00h-7Fh)	64 (40h)		
V06	R CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V07	G CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V08	B CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V09	G/R DRIVE	0-127 (00h-7Fh)	64 (40h)		
V10	B DRIVE	0-127 (00h-7Fh)	64 (40h)		
V11	Y-MUTE/V-STOP	0-2	0 (00h)	Y-Mute / Horizontal "—"	
V12	SHARP	0-63 (00h-3Fh)	50 (32h)		32
V13	DC RESTORATION	0-3 (00h-03h)	2 (02h)		02
V14	BLACK STRETCH	0-3 (00h-03h)	2 (02h)		02
V15	ABL START POINT	0-3 (00h-03h)	3 (03h)		03
V16	ABL GAIN	0-3 (00h-03h)	2 (02h)		02
V17	γ POINT	0-3 (00h-03h)	0 (00h)		00
V19	ENERGY SAVE	0-63 (00h-3Fh)	63 (3Fh)	Offset	3F
V24	LOW-G	0-255 (00h-FFh)	12 (0Ch)	Color Temp.	F4
V25	LOW-B	0-255 (00h-FFh)	241 (F1h)	Color Temp.	E6
V26	ML-G	0-255 (00h-FFh)	0 (00h)	Color Temp.	FD
V27	ML-B	0-255 (00h-FFh)	247 (F7h)	Color Temp.	F8
V28	HIGH-G	0-255 (00h-FFh)	2 (02h)	Color Temp.	01
V29	HIGH-B	0-255 (00h-FFh)	8 (08h)	Color Temp.	06
V30	WPL	0-1	1 (01h)		01
V31	RGB CONTRAST	0-63 (00h-3Fh)	59 (3Bh)		3B
V34	VSM GAIN	0-3 (00h-03h)	1 (01h)		01
V36	BPF/TOF-INPUT	0-1	0 (00h)	External Input	00
V37	CORING	0-1	0 (00h)		00
V38	VSM PHASE	0-1	0 (00h)		00
V39	COLOR γ	0-1	0 (00h)		00
V40	SHARP-INPUT	0-63 (00h-3Fh)	44 (2Ch)	External Input	2C
V41	TINT-INPUT	0-127 (00h-7Fh)	62 (3Eh)	External Input	3E
V42	PICTURE-COMPONENT	0-15 (00h-0Fh)	6 (06h)	Component Input	
V43	TINT-COMPONENT	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V44	COLOR-COMPONENT	0-127 (00h-7Fh)	72 (48h)	Component Input	48
V45	BRIGHT-COMPONENT	0-127 (00h-7Fh)	84 (54h)	Component Input	
V46	R CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V47	G CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V48	B CUT OFF-COMPONENT	64-255 (00h-FFh)	64 (40h)	Component Input	
V49	G/R DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V50	B DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V51	SHARP-COMPONENT	0-63 (00h-3Fh)	44 (2Ch)	Component Input	2C
V52	TINT-S	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V53	C-TRAP	0-1 (00h-01h)	0 (00h)		00
V59	AUTO FRESH	0-1 (00h-01h)	0 (00h)		00
V60	SHARP P F	0-1 (00h-01h)	1 (01h)		01
V61	CD MATRIX	0-3 (00h-03h)	2 (02h)		02
V62	B-Y ATT	0-1 (00h-01h)	0 (00h)		00
V63	R-Y ATT	0-1 (00h-01h)	0 (00h)		00
V64	CD MATRIX COMPONENT	0-3 (00h-03h)	0 (00h)	Component Input	00
V65	B-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V66	R-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V67	BUZZ	0-1 (00h-01h)	1 (01h)		01
V68	RGB ABCL	0-1 (00h-01h)	1 (01h)		01
V69	PICTURE-VCOMP	0-100 (00h-64h)	47 (2Fh)	16:9 Format (Offset)	2F
V70	COLOR-VCOMP	0-100 (00h-64h)	50 (32h)	16:9 Format (Offset)	32
V71	BRIGHT-VCOMP	0-100 (00h-64h)	51 (33h)	16:9 Format (Offset)	33
R01	RF-AGC	0-63 (00h-3Fh)	36 (24h)		
R03	RF-AGC REF	0-255 (00h-FFh)	170 (AAh)	Standard value for the self-adjustment	AA
D01	V POSITION	0-7 (00h-07h)	0 (00h)		00
D02	H POSITION	0-31 (00h-1Fh)	15 (0Fh)		
D03	V SIZE	0-127 (00h-7Fh)	89 (59h)		
D04	H SIZE	0-63 (00h-3Fh)	36 (24h)		
D05	V-LINEARITY	0-15 (00h-0Fh)	8 (08h)		
D06	V-S CORRECTION	0-15 (00h-0Fh)	12 (0Dh)		0D
D07	EW PARABOLA	0-63 (00h-3Fh)	43 (2Bh)		
D08	EW TRAPEZIUM	0-63 (00h-3Fh)	36 (24h)		
D10	AFC GAIN	0-3 (00h-03h)	2 (02h)		02
D11	V EHT	0-7 (00h-07h)	6 (06h)		06
D12	H EHT	0-7 (00h-07h)	6 (06h)		06
D13	EW CORNER	0-31 (00h-1Fh)	8(08h)		08

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
D14	EW CORNER BOTTOM	19-81 (13h-51h)	50 (32h)	Offset toward D13.	32
D15	NOISE DET LEVEL	0-3 (00h-03h)	0 (00h)		00
D18	V CENTERING	0-63 (00-3Fh)	36 (24h)		
D19	V-AGC	0-1 (00h-01h)	0 (00h)		00
D20	V POSITION-VCOMP	0-7 (00h-07h)	0 (00h)	16:9 Format	00
D21	H POSITION-VCOMP	0-31 (00h-1Fh)	15(0Fh)	16:9 Format	
D22	V SIZE-VCOMP	0-127 (00h-7Fh)	52(34h)	16:9 Format	
D23	H SIZE-VCOMP	0-63 (00h-3Fh)	36(24h)	16:9 Format	
D24	V-LINEARITY-VCOMP	0-15 (00h-0Fh)	8(08h)	16:9 Format	
D25	V-C CORRECTION-VCOMP	0-15 (00h-0Fh)	10(0Ah)	16:9 Format	0B
D26	EW PARABOLA-VCOMP	0-63 (00h-3Fh)	22(16h)	16:9 Format	
D27	EW TRAPEZIUM-VCOMP	0-63 (00h-3Fh)	35(23h)	16:9 Format	
D28	V EHT-VCOMP	0-7 (00h-07h)	6(06h)	16:9 Format	06
D29	H EHT-VCOMP	0-7 (00h-07h)	6(06h)	16:9 Format	06
D30	EW CORNER-VCOMP	0-31 (00h-1Fh)	12(0Ch)	16:9 Format	0B
D31	EW CORNER BOTTOM-VCOMP	19-81 (13h-51h)	50(32h)	Offset toward D30	32
D32	V BLK UPPER-VCOMP	0-3 (00h-03h)	2(02h)	16:9 Format	02
D33	V BLK LOWER-VCOMP	0-3 (00h-03h)	2(02h)	16:9 Format	02
D34	V CENTERING-VCOMP	0-63 (00h-3Fh)	36(24h)	16:9 Format	

B. SPECIAL SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
EX1	FAO VOLUME	0-50 (00h-32h)	36 (24h)		24
EX2	CC-POSITION	0-127 (00h-7Fh)	27 (1Bh)		1C
EX3	INT	0-255 (00h-FFh)	122 (7Ah)	Interrupt period adjustment.	7A
EX4	A-ATT	0-127 (00h-7Fh)	90 (5Ah)		5A
EX5	TUNER data	0-3 (00h-03h)	0 (00h)		00
EX6	Think chip-Slice LEVEL	0-255 (00h-FFh)	54 (36h)		12
EX7	RLY DELAY TIME	0-255 (00h-FFh)	0 (00h)	For the power control	00
EX8	ADG ON TIME	0-255 (00h-FFh)	10 (0Ah)	For the power control	0A

C. OPTION SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
OP1	OPTION1	0-255 (00h-FFh)	245 (F5h)		F5
OP2	OPTION2	0-255 (00h-FFh)	188 (BCh)		BC
OP3	OPTION3	0-255 (00h-FFh)	15 (0Fh)		0F

D. SOUND ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTES	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
M01	INPUT LEVEL	0-15 (00h-0Fh)	7 (07h)		
M02	MTS VCO	0-63 (00h-3Fh)	38 (26h)		
M03	FILTER	0-63 (00h-3Fh)	36 (24h)		
M04	WIDEBAND	0-63 (00h-3Fh)	28 (1Ch)		
M05	SPECTRAL	0-63 (00h-3Fh)	23 (17h)		
M09	SRS LEVEL	0-255 (00h-FFh)	224 (E0h)		E0
M10	BBE LEVEL	0-255 (00h-FFh)	217 (D9h)		D9
M11	SRS&BBE LEVEL	0-255 (00h-FFh)	208 (D0h)		D0
M12	SRS&BBE OFF LEVEL	0-255 (00h-FFh)	228 (E4h)		E4
M13	SRS Effect	2-3 (02h-03h)	2 (02h)		02
M14	BBE-L Effect	0-15 (00h-0Fh)	15 (0Fh)		0F
M15	BBE-H Effect	0-15 (00h-0Fh)	15 (0Fh)		0F
M16	AGC Level	0-7 (00h-07h)	1 (01h)		01
M17	BASS Offset	0-31 (00h-1Fh)	15 (0Fh)		0F
M18	TREBLE Offset	0-31 (00h-1Fh)	15 (0Fh)		0F
M19	BASS Offset-BBE	0-31 (00h-1Fh)	17 (11h)		11
M20	TREBLE Offset-BBE	0-31 (00h-1Fh)	16 (10h)		10

Holding down both the VOL-up and CH-up buttons on the TV set at service mode for more than 2 seconds will

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
IC2001		X	Data is stored in IC2101.
IC201	X		The adjustment is needed to compensate for characteristics of parts
IC2101	X		Holding down both the VOL-up and CH-up buttons on the TV set in the service mode for more than 2 seconds will automatically write the
CRT	X		Adjust items related to picture tube only.
IC3001	X		Adjust items related to MTS only (M01~M20).

SERVICE ADJUSTMENT

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "R01".
3. Set the data value to point where no noise or beat appears.
4. Select another channel to confirm that no noise or beat appears.

Note 1 : You will have to come out of the service mode to select another channel.

Note 2 : Setting the data to "00" will produce a black raster.

Screen Adjustment

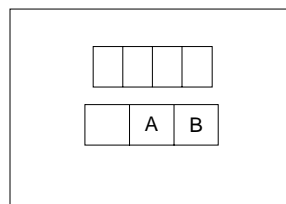
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set the data value to "00" to set the color level to minimum. (Record original data code under adjustment "V03" before changing) You may skip this step, if you selected a B/W picture or monoscope pattern.
3. Select the service adjustment "V11" and adjust the data value to "01", this turn off the luminance signal (Y-mute).
4. Adjust the master screen control until the raster darkens to the point where raster is barely seen.
5. Adjust the service adjustments "V06" red, "V07" green and "V08" blue to obtain a good grey scale with normal whites at low brightness level.
6. Select the service adjustment "V11" and reset data to "00". Select the service adjustment "V03" and reset data to obtain normal color level.
7. For component input, the data value of "V46" red, "V47" green and "V48" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
8. Reset the master screen control to obtain normal brightness range.

White Balance Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set to "00" (minimum color)(Record original data code under adjustment "V03" before changing). "V03" does not have to be adjusted, if you selected a B/W picture or monoscope pattern.
3. Alternately adjust the service adjustment data of "V09" and "V10" until a good grey scale with normal whites is obtained. (RF Input)
4. For component input, the data value of "V49" and "V50" is adjusted to follow the data value of "V09" and "V10" respectively.
5. Select the service adjustment "V03" and reset data to obtain normal color level.

Sub-picture and Sub-Bright Adjustments

1. Receive the window pattern signal.
 - RF INPUT (TU51)
2. Get into service adjustment data "V01" and "V05" and set the luminance as shown in figure "A" and "B" as below respectively.
- COMPONENT INPUT
3. Get in service adjustment data "V42" and "V45" and set the luminance as shown in figure "A" and "B" as below respectively.



LUMINESCENCE CONFIRMATION

A: $95 \pm 10 \text{cd/m}^2$

B: $1.5 \pm 0.5 \text{cd/m}^2$

Holding down both the VOL-up and CH-up buttons on the TV set at service mode for more than 2 seconds will

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
IC2001		X	Data is stored in IC2101.
IC201	X		The adjustment is needed to compensate for characteristics of parts
IC2101	X		Holding down both the VOL-up and CH-up buttons on the TV set in the service mode for more than 2 seconds will automatically write the
CRT	X		Adjust items related to picture tube only.
IC3001	X		Adjust items related to MTS only (M01~M20).

SERVICE ADJUSTMENT

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "R01".
3. Set the data value to point where no noise or beat appears.
4. Select another channel to confirm that no noise or beat appears.

Note 1 : You will have to come out of the service mode to select another channel.

Note 2 : Setting the data to "00" will produce a black raster.

Screen Adjustment

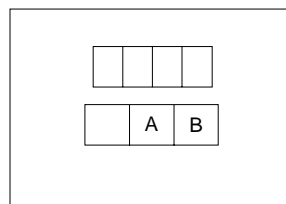
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set the data value to "00" to set the color level to minimum. (Record original data code under adjustment "V03" before changing) You may skip this step, if you selected a B/W picture or monoscope pattern.
3. Select the service adjustment "V11" and adjust the data value to "01", this turn off the luminance signal (Y-mute).
4. Adjust the master screen control until the raster darkens to the point where raster is barely seen.
5. Adjust the service adjustments "V06" red, "V07" green and "V08" blue to obtain a good grey scale with normal whites at low brightness level.
6. Select the service adjustment "V11" and reset data to "00". Select the service adjustment "V03" and reset data to obtain normal color level.
7. For component input, the data value of "V46" red, "V47" green and "V48" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
8. Reset the master screen control to obtain normal brightness range.

White Balance Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set to "00" (minimum color)(Record original data code under adjustment "V03" before changing). "V03" does not have to be adjusted, if you selected a B/W picture or monoscope pattern.
3. Alternately adjust the service adjustment data of "V09" and "V10" until a good grey scale with normal whites is obtained. (RF Input)
4. For component input, the data value of "V49" and "V50" is adjusted to follow the data value of "V09" and "V10" respectively.
5. Select the service adjustment "V03" and reset data to obtain normal color level.

Sub-picture and Sub-Bright Adjustments

1. Receive the window pattern signal.
 - RF INPUT (TU51)
2. Get into service adjustment data "V01" and "V05" and set the luminance as shown in figure "A" and "B" as below respectively.
- COMPONENT INPUT
3. Get in service adjustment data "V42" and "V45" and set the luminance as shown in figure "A" and "B" as below respectively.



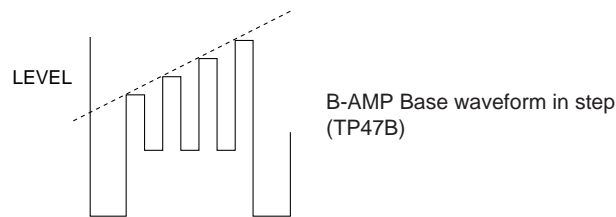
LUMINESCENCE CONFIRMATION

A: $95 \pm 10 \text{cd/m}^2$

B: $1.5 \pm 0.5 \text{cd/m}^2$

Sub-Tint Adjustment

1. Receive the half color bar signal.
- RF INPUT (TU51)
2. Get into Y-Mute by R/C, or by setting the "V11" bus data to "01".
3. Vary the "V02" bus data until the waveform becomes as stated below.



Sub-Color Adjustment

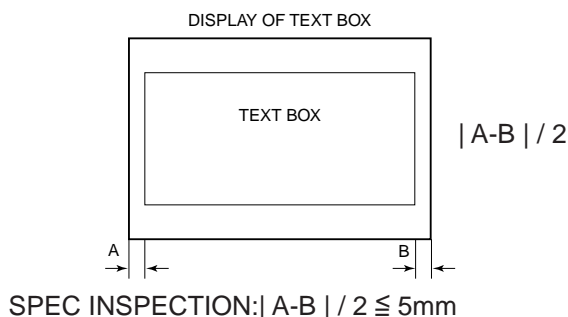
1. Receive a good local channel.
2. Make sure the customer color control is set to center position.
- RF INPUT (TU51)
3. Enter the service mode and select service adjustment "V03".
4. Adjust "V03" data value to obtain a normal color level.

Focus Adjustment

1. Receive a good local channel.
2. Adjust the FOCUS VR of the flyback transformer to make the image as fine as possible.

C. C Display Position Adjustment

1. Receive the lion head pattern signal.
2. Select "EX2" to display the text box.
3. Adjust the "EX2" bus data to let the text box displayed in the center.



Vertical-Size and Linearity Adjustments

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D03" for V-size.
3. Adjust the "D03" bus data to get the proper V-size.
4. For V-linearity adjustment, select data bus "D05" and adjust to get the proper vertical linearity.
(SCREEN FORMAT 16:9)
5. Input data of "D22" to mines 36 step from "D03" data.
(V-SIZE)
6. Input data of "D24" same as "D05" data. (V-LIN)

Note: Aging for 10 min before adjustment. After the adjustment of V-center and V-size, re-adjustment for this V-line.

Vertical Phase Adjustment

(SCREEN FORMAT 4:3)

1. Enter the service mode and input data of "00h" on "D01".
2. Adjust "D18" data value so that picture is centered.
(SCREEN FORMAT 16:9)
3. Input data of "00h" on "D20".
4. Input data of "D34" same as "D18" data.

Horizontal Position Adjustment

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D02".
3. Adjust "D02" data value so that picture is centered.
(SCREEN FORMAT 16:9)
4. Input data of "D21" same as "D02" data.

Horizontal-Size Adjustment

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D04" for H-size.
3. Adjust the "D04" bus data to get the proper H-size.
(SCREEN FORMAT 16:9)
4. Input data of "D23" same as "D04" data.

EW-Parabola

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D07" for EW parabola.
3. Adjust the "D07" bus data to get the proper vertical straight line for both left and right side.
(SCREEN FORMAT 16:9)
4. Input data of "D26" to mines 19 step from "D07" data.

EW-Trapezium

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D08" for EW-Trapezium.
3. Adjust the "D08" bus data to get the best position display.
(SCREEN FORMAT 16:9)
4. Input data of "D27" same as "D08" data.

■ MTS ADJUSTMENT

MTS Level Adjustment

1. Set the sound volume above 1.
Monoral signal: 400Hz, 100% modulation
2. Confirm "EX4" data is "5Ah".
3. Vary the "M01" bus data until the voltage to pin (39) of IC3001 to become the value as stated below.
SETTING VOLTAGE
ADJ spec : $490 \pm 10 \text{mVrms}$
CHK spec: $490 \pm 20 \text{mVrms}$

MTS VCO Adjustment

1. Keep the unit in no-signal state.
2. Connect the frequency counter to pin (39) of IC3001.
3. Connect a capacitor (100 μ F, 50V) in between positive(+) side of C3005 and ground.
4. Enter the service mode and select the service adjustment "M02"
5. Adjust the data so that the frequency counter reads $62.94 \pm 0.75 \text{kHz}$.

Filter Adjustment

1. Feed the following stereo pilot signal to pin (14) of IC3001 at C3005 open.
Stereo pilot signal: 9.4kHz, 600mVrms.
2. Enter the service mode and select the service adjustment "M03".
3. Adjust the data until "OK" appears in position on the screen. Make sure the "OK" is displayed almost at the center of the data range.

Separation Adjustment

1. Input "SIGNAL 1" and vary the "M04" bus data to get the minimum AC voltage to pin (39) of IC3001.
2. Input "SIGNAL 2" and vary the "M05" bus data to get the minimum AC voltage to pin (39) of IC3001.
SIGNAL 1: 300Hz, 30% modulation, Lch only, NR-ON
SIGNAL 2: 3kHz, 30% modulation, Lch only, NR-ON

Note: SIGNAL 1 Adj. for wideband

SIGNAL 2 Adj. for spectral

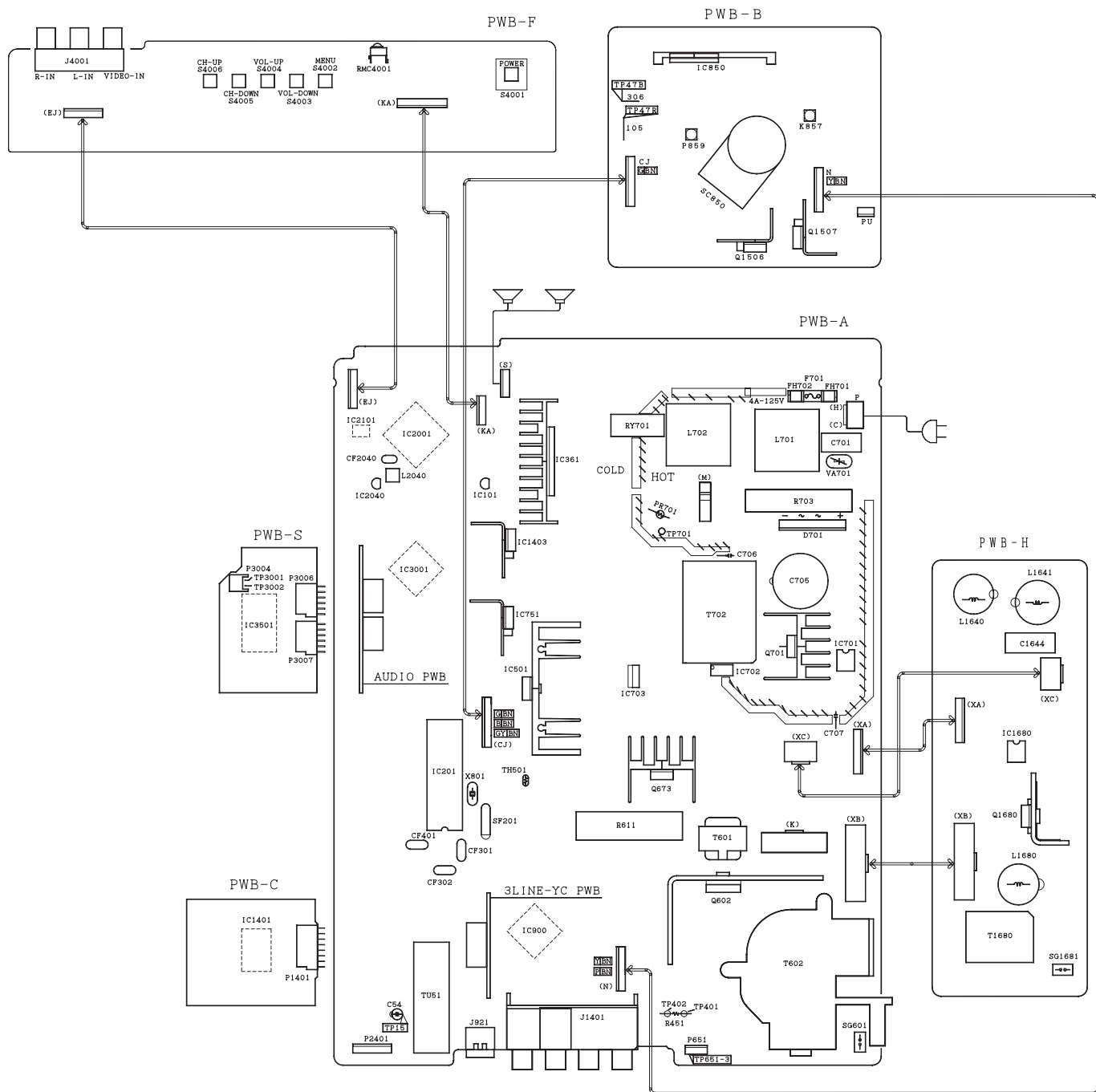
Check the output of the speaker at the maximum volume as stated below.

Confirmation spec:

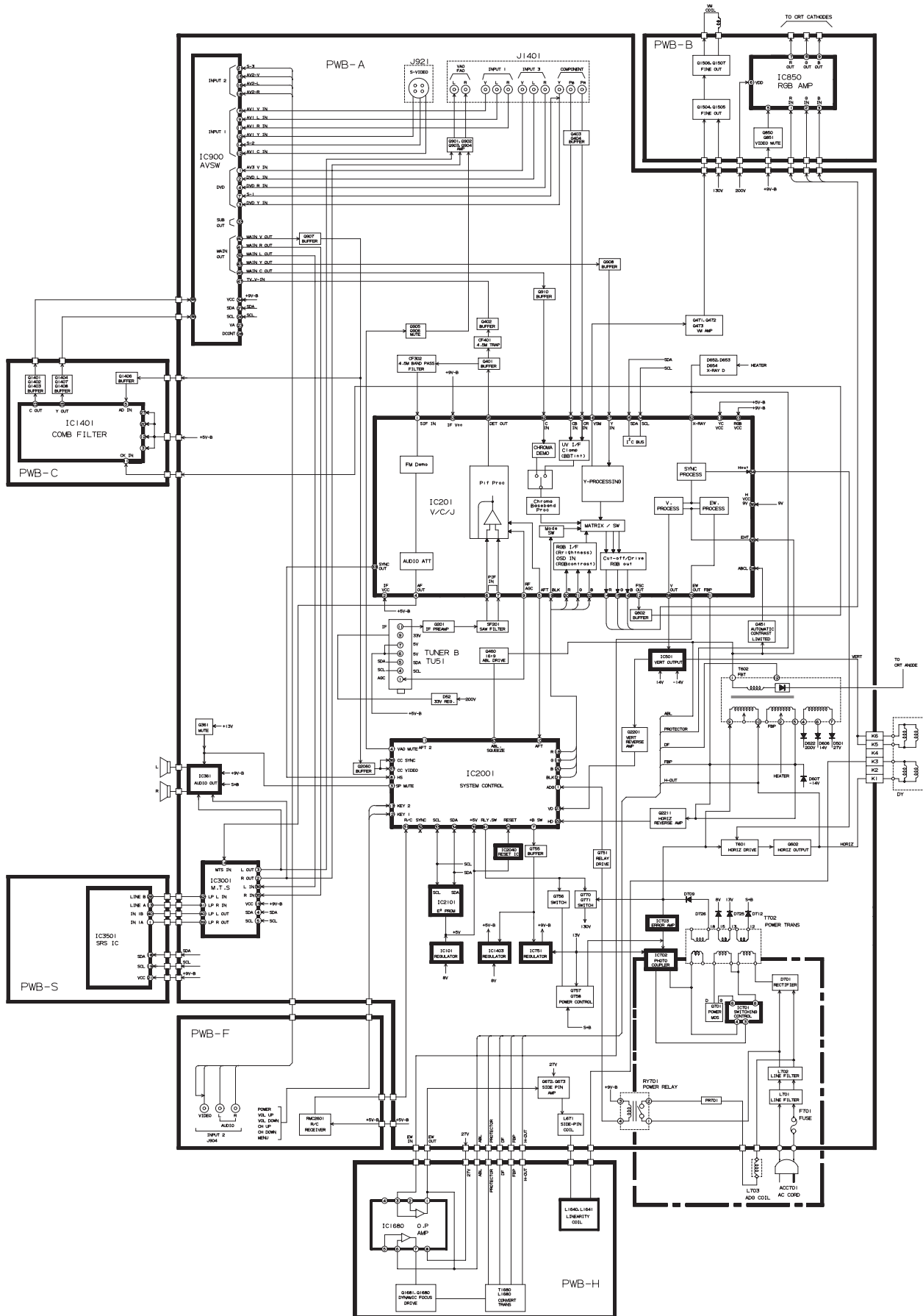
ADJ spec: above 25 dB

CHK spec: above 20 dB

CHASSIS LAYOUT(32F631)



BLOCK DIAGRAM(32F631)



DESCRIPTION OF SCHEMATIC DIAGRAM

NOTES:

1. The unit of resistance "ohm" is omitted.
($K=k\Omega=1000\Omega$, $M=M\Omega$)
2. All resistors are 1/16 watt, unless otherwise noted.
3. All capacitors are μF , unless otherwise noted.
($P=pF=\mu\mu F$)
4. (G) indicates $\pm 2\%$ tolerance may be used.
5. $\text{---}\text{||}\text{---}$ indicates line isolated ground.

VOLTAGE MEASUREMENT CONDITIONS:

1. All DC voltages are measured with DVM connected between points indicated and chassis ground, line voltage set at 120V AC and all controls set for normal picture unless otherwise indicated.
2. All voltages measured with 1000 μ V B & W or Color signal.

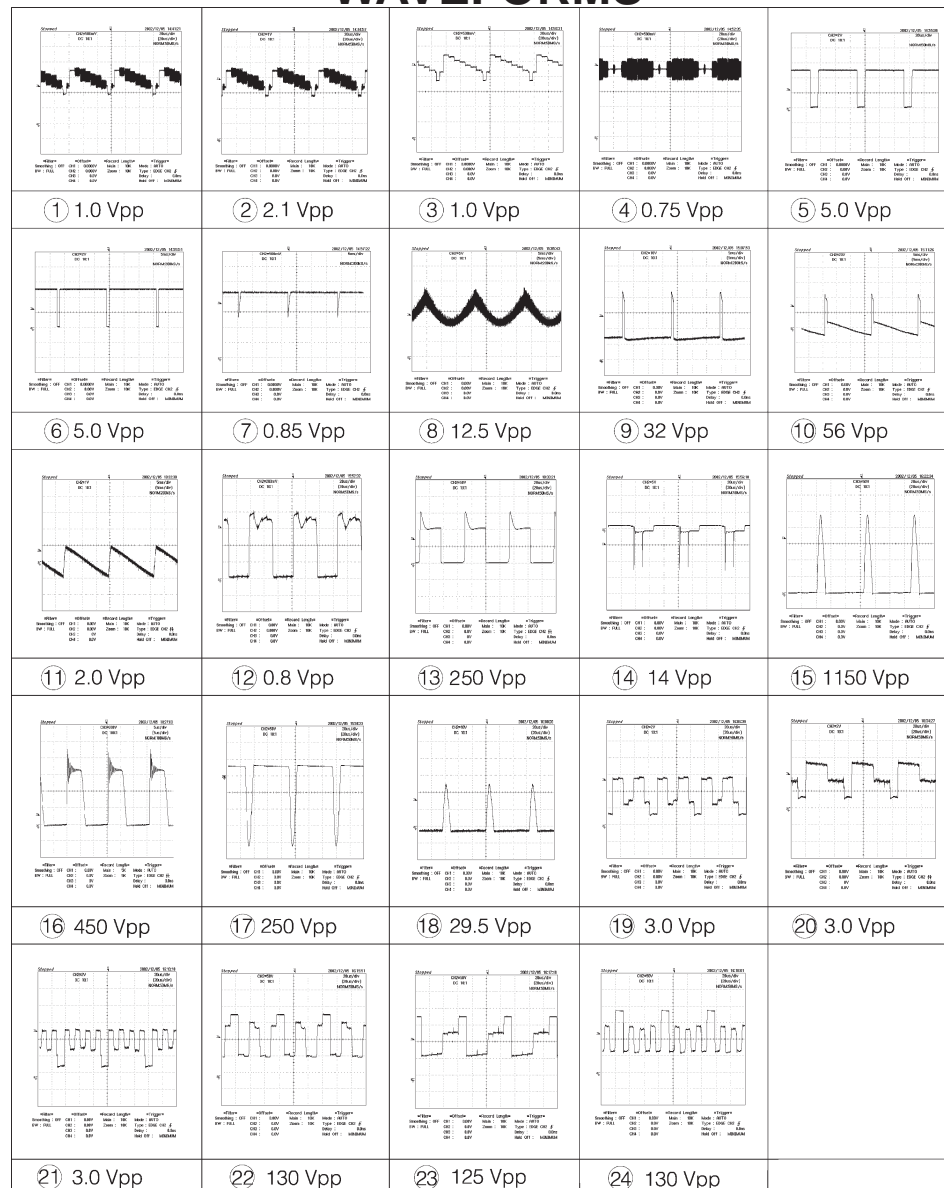
WAVEFORM MEASUREMENT CONDITIONS:

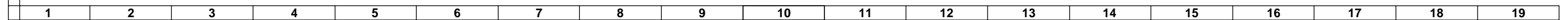
1. Photographs taken on a standard gated color bar signal, the tint setting adjusted for proper color. The wave shapes at the red, green and blue cathodes of the picture tube depend on the tint, color level and picture control.
2. \bigcirc indicates waveform check points (See chart, waveforms are measured from point indicated to chassis ground.)

\triangle AND SHADED () COMPONENTS = SAFETY RELATED PARTS.
 \blacktriangle MARK= X-RAY RELATED PARTS.

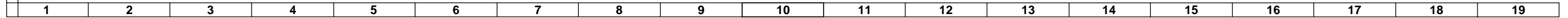
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

WAVEFORMS

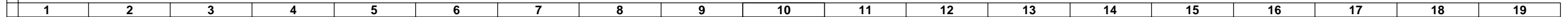


[illegible]

A



A

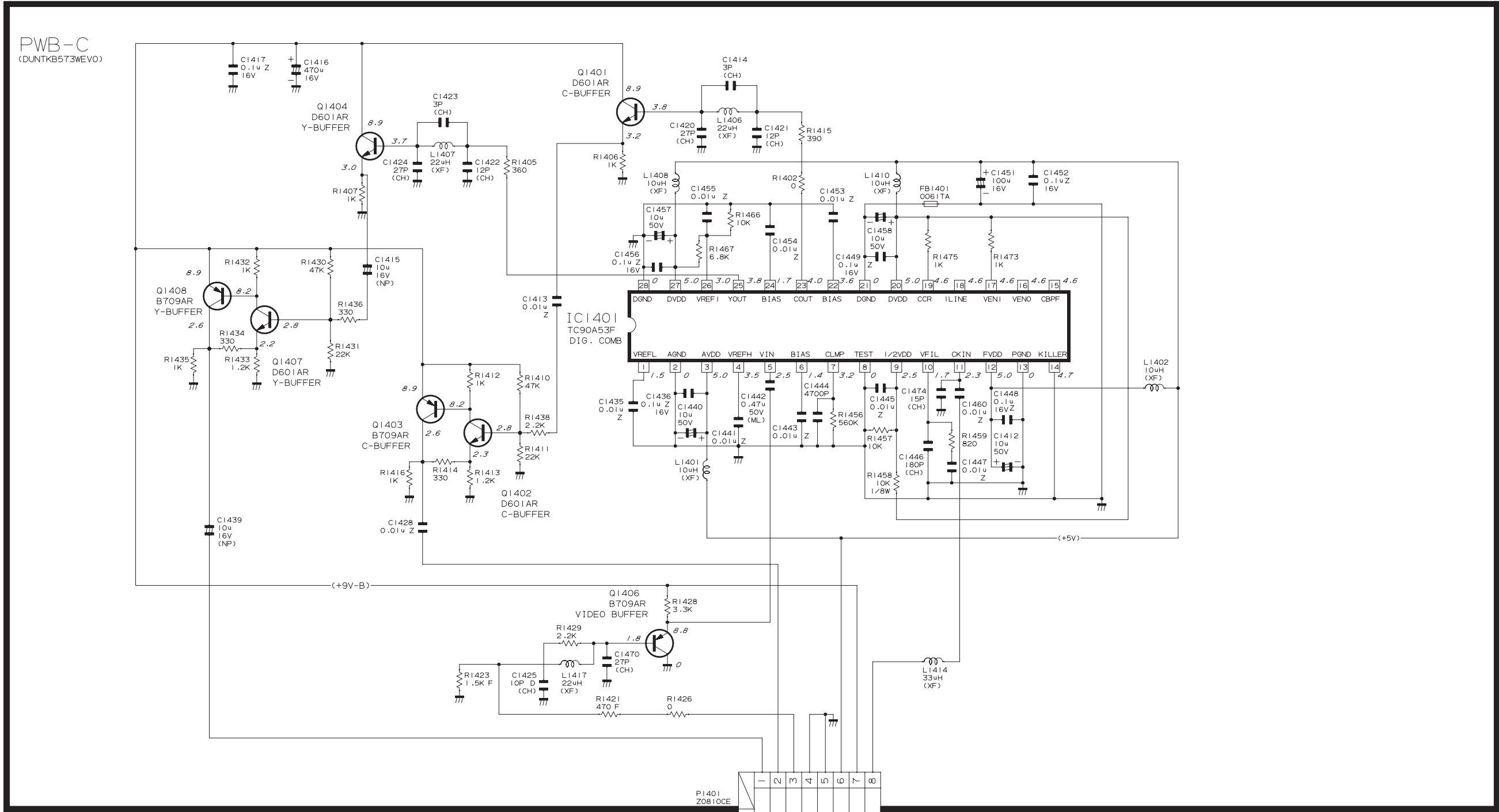


H



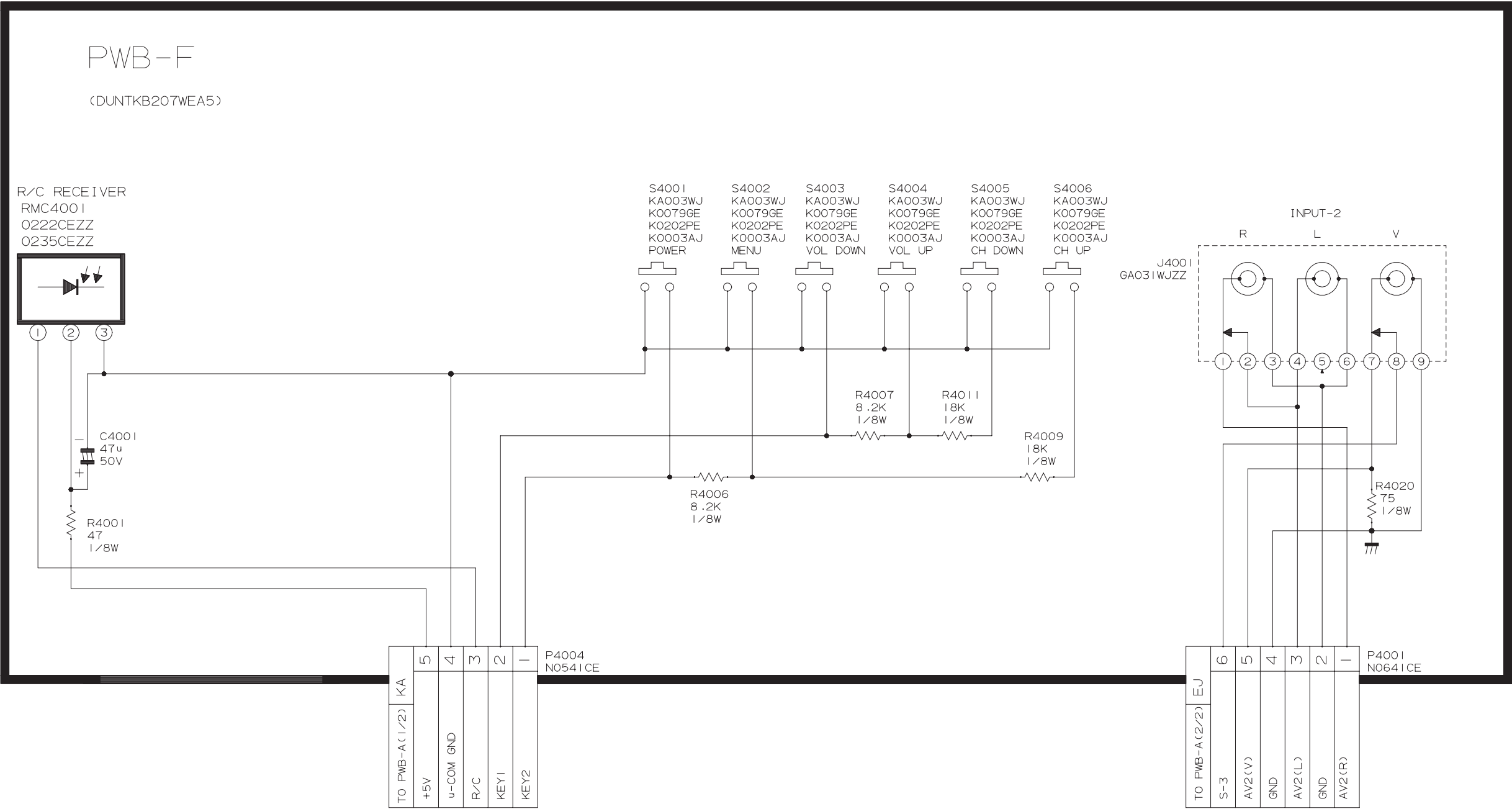
3-LINE Y/C UNIT

NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2. ALL RESISTORS ARE 1/16 WATT, UNLESS OTHERWISE NOTED.
3. UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).



CONTROL UNIT(32F631 ONLY)

NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM) .
2.THE UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC) .



H

G

F

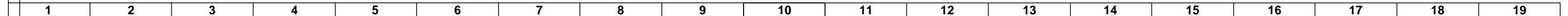
E

D

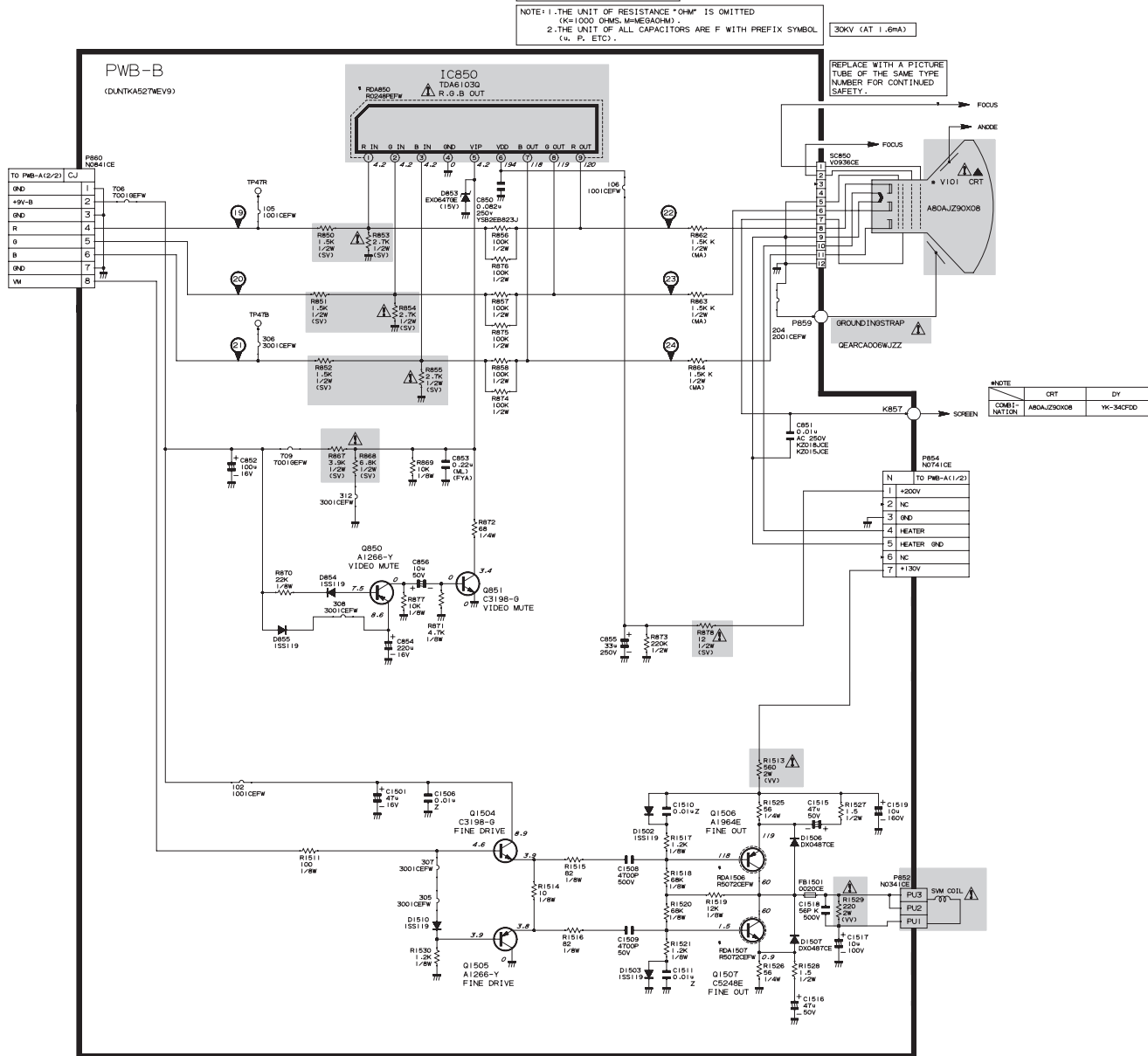
C

B

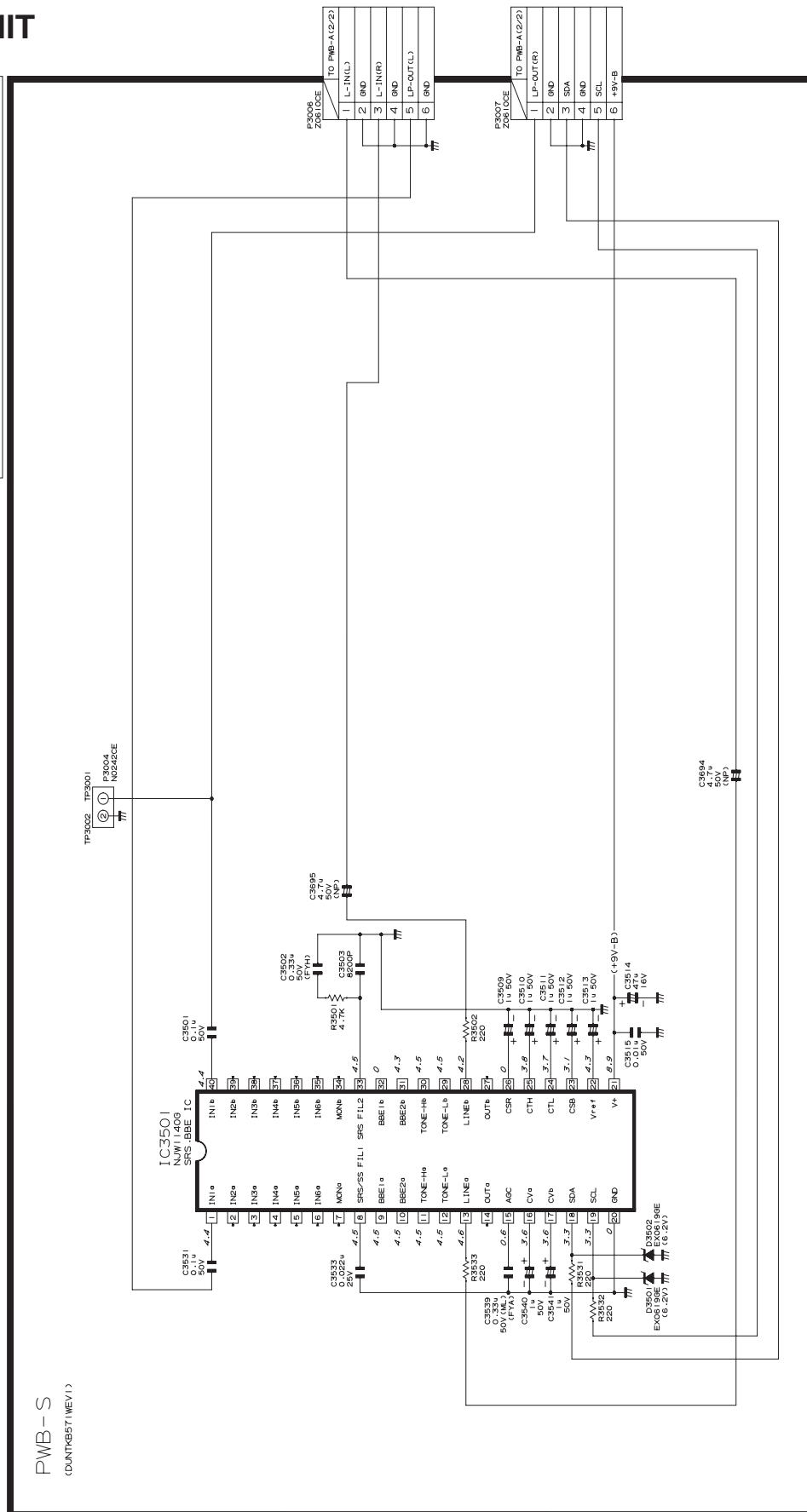
A



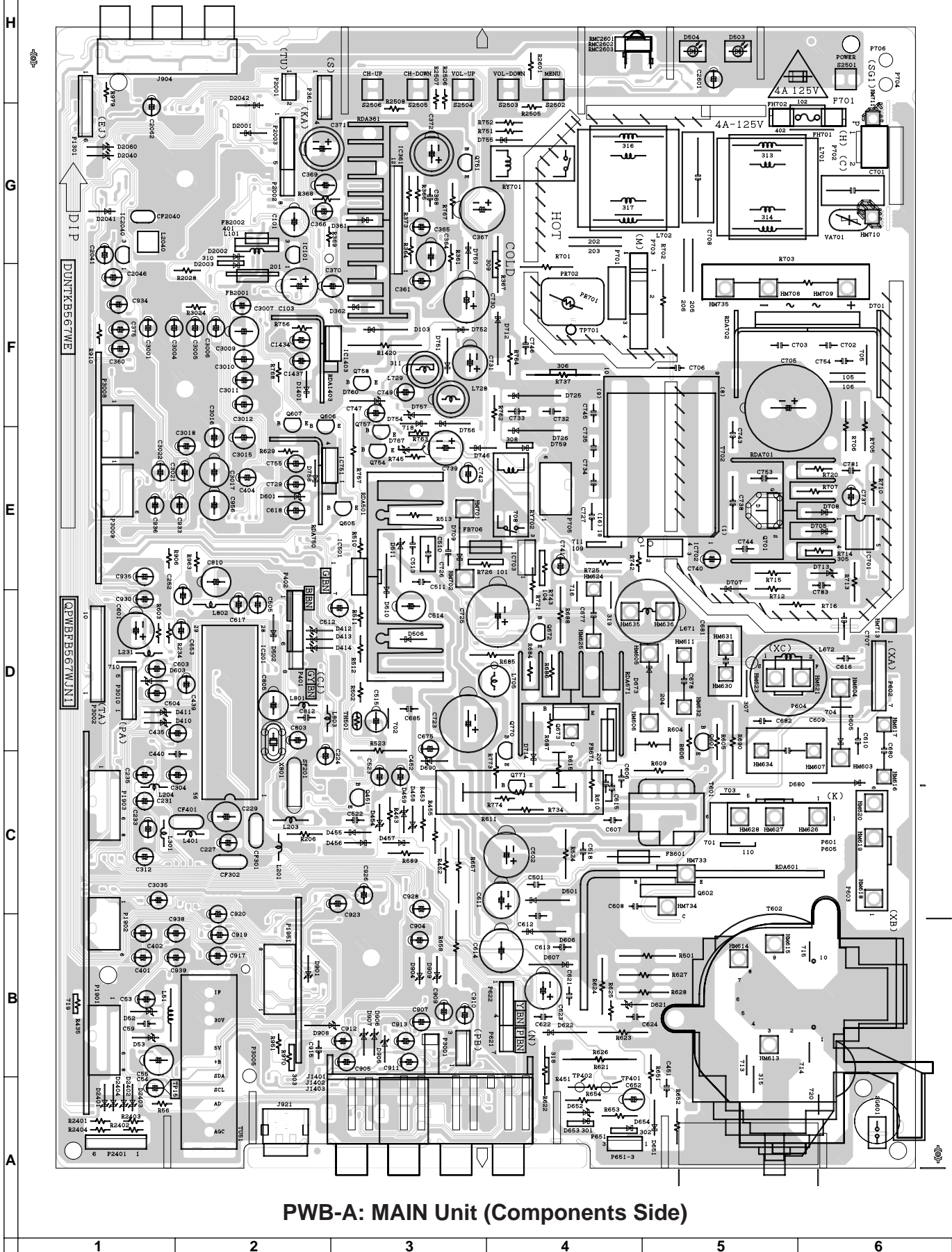
NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2. THE UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).



NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2. ALL RESISTORS ARE 1/16 WATT UNLESS OTHERWISE NOTED.
3. UNIT OF ALL CAPACITORS ARE P WITH PREFIX SYMBOL
(u, P, ETC).



PRINTED WIRING BOARD ASSEMBLIES

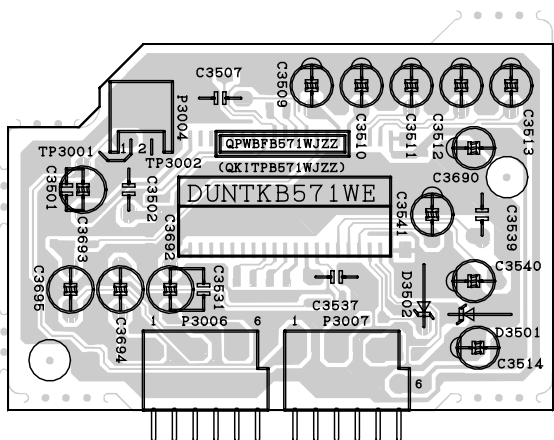




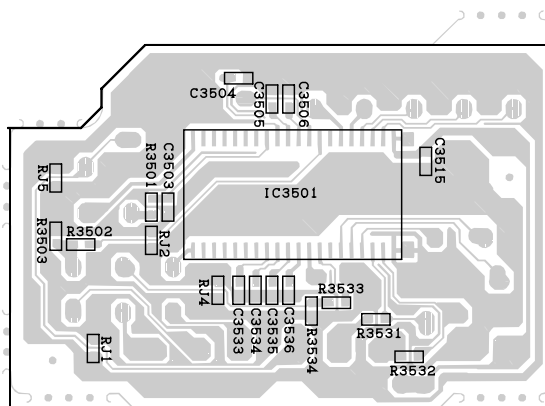
37

PWB-F: CONTROL Unit(32F631 ONLY) (Component Side)

PWB-F: CONTROL Unit(32F631 ONLY) (Wiring Side)



PWB-S: AUDIO Unit (Wiring Side)



PWB-S: AUDIO Unit (Chip Parts Side)

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by Δ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

★ MARK: SPARE PARTS-DELIVERY SECTION

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code
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PICTURE TUBE

▲ Δ V101	VB80AJZ90X+3E	X	Picture Tube	CX
Δ L703	RCiLGA045WJZZ	X	Degaussing Coil	AN
	QEARCA006WJZZ	X	Ground-Part	AD

PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

PWB-A DUNTKB567WEW2	—	Main Unit(32F630)	—
PWB-A DUNTKB567WEX8	—	Main Unit(32F631)	—
PWB-B DUNTKA527WEV9	—	CRT Unit	—
PWB-C DUNTKB573WEV0	—	3-Line Y/C Unit	—
PWB-F DUNTKB207WEA5	—	Control Unit(32F631)	—
PWB-H DUNTKB569WEV0	—	DF Module Unit	—
PWB-S DUNTKB571WEV1	—	Audio Unit	—

Ref. No.	Part No.	★	Description	Code
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PWB-A: DUNTKB567WEW2(32F630) DUNTKB567WEX8(32F631) MAIN UNIT

TUNER

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

▲ TU51	VTUVT1T5UF02	X	VHF Tuner	AR
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INTEGRATED CIRCUITS

	IC101	VHiPQ050ES1-1+	X	PQ050ES1MXP	AB
▲ Δ	IC201	VHiTB1253AN-1	X	TB1253AN	AP
Δ	IC361	VHiAN5277//1	X	AN5277	AG
Δ	IC501	VHiTDA8177+-1	X	TDA8177	AE
Δ	IC701	VHiTEA1507/-1	X	TEA1507P/N1	AE
▲ Δ	IC703	VHiSE135N++-F	X	I.C.	AD
	IC751	VHiPQ09RD11-1	X	PQ09RD11	AD
	IC900	VHiCXA2089Q-2Y	X	CXA2089Q-6T	AK
	IC1403	VHiPQ05RD11-1	X	PQ05RD11	AD
	IC2001	RH-iXA418WJZZQ	X	TMP88CS38BFG	AN
	IC2040	VHiKiA7045A-1+	X	KIA7045AP	AB
	IC2101	VHiBR2416E2-1*	X	BR24C16F	AD
	IC3001	VHiCXA2074Q-1*	X	CXA2074Q	AP

TRANSISTORS

	Q201	VS2SC2735//1E*	X	2SC2735	AB
	Q361	VS2SB709AR/-1*	X	2SB709AR	AA
	Q401	VS2SD601AR/-1*	X	2SD601AR	AA
	Q402	VS2SB709AR/-1*	X	2SB709AR	AA
	Q403	VS2SD601AR/-1*	X	2SD601AR	AA
	Q404	VS2SD601AR/-1*	X	2SD601AR	AA
	Q451	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q460	VSRT1N441C/-1*	X	RT1N441C	AB
	Q471	VS2SD601AR/-1*	X	2SD601AR	AA
	Q472	VS2SD601AR/-1*	X	2SD601AR	AA
	Q473	VS2SD601AR/-1*	X	2SD601AR	AA
	Q601	VS2SC2482//1+	X	2SC2482	AB
▲	Q602	VS2SC5450++1E	X	2SC5450++	AH
	Q672	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q673	VS2SD1830//1E	X	2SD1830	AD
▲	Q701	VSSPA11N603-1	X	SPA11N603	AK
	Q751	VS2SC3198-G-1+	X	2SC3198-G	AB
	Q755	VS2SD601AR/-1*	X	2SD601AR	AA
	Q756	VS2SD601AR/-1*	X	2SD601AR	AA
	Q757	VS2SC3198-G-1+	X	2SC3198-G	AB
	Q758	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q770	VS2SC3333//1+	X	2SC3333	AB
	Q771	VS2SA1091-O1A+	X	2SA1091-O1	AC
	Q802	VS2SD601AR/-1*	X	2SD601AR	AA
	Q901	VS2SD601AR/-1*	X	2SD601AR	AA
	Q902	VS2SD601AR/-1*	X	2SD601AR	AA
	Q903	VS2SD601AR/-1*	X	2SD601AR	AA
	Q904	VS2SD601AR/-1*	X	2SD601AR	AA
	Q905	VS2SD601AR/-1*	X	2SD601AR	AA
	Q906	VS2SD601AR/-1*	X	2SD601AR	AA
	Q907	VS2SD601AR/-1*	X	2SD601AR	AA
	Q908	VS2SB709AR/-1*	X	2SB709AR	AA
	Q910	VS2SB709AR/-1*	X	2SB709AR	AA
	Q2060	VS2SD601AR/-1*	X	2SD601AR	AA
	Q2201	VS2SD601AR/-1*	X	2SD601AR	AA
	Q2211	VS2SD601AR/-1*	X	2SD601AR	AA

DIODES

D52	RH-EX0676GEZZ*	X	Zener Diode, 32V	AB
D103	RH-DX0441CEZZ*	X	Diode	AA
D361	VHD1SS119//1*	X	1SS119	AA
D362	VHD1SS119//1*	X	1SS119	AA
D410	RH-EX0611GEZZ*	X	Zener Diode, 5.1V	AB
D411	RH-EX0611GEZZ*	X	Zener Diode, 5.1V	AB
D412	RH-EX0614GEZZ*	X	Zener Diode, 5.6V	AB
D413	RH-EX0614GEZZ*	X	Zener Diode, 5.6V	AB
D414	RH-EX0614GEZZ*	X	Zener Diode, 5.6V	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code	
PWB-A: DUNTKB567WEW2(32F630) DUNTKB567WEX8(32F631) MAIN UNIT (Continued)					TRANSFORMERS					
	D454		RH-EX0628GEZZ*	X Zener Diode, 8.2V	AB	△ T601	RTRNZ0057PEZZ	X Transformer	AD	
	D455		VHD1SS119// -1*	X 1SS119	AA	▲ △ T602	RTRNFA041WJZZ	X H-Volt Transformer	AW	
	D501		RH-DX0302CEZZ*	X Diode	AB	△ T702	RTRNWA072WJZZ	X Transformer	AH	
	D502		VHD1SS119// -1*	X 1SS119	AA	CAPACITORS				
	D510		RH-DX0441CEZZ*	X Diode	AA	C53	VCEA0A1HW105M+X	1 50V	Electrolytic	AA
△	D605		RH-DX0255CEZZ	X Diode	AD	C54	VCEA0A1HW475M+X	4.7 50V	Electrolytic	AA
△	D606		RH-DX0302CEZZ*	X Diode	AB	C55	VCEA0A0JW108M+X	1000 6.3V	Electrolytic	AB
	D607		RH-DX0471CEZZ*	X Diode	AB	C58	VCKYCY1HF103Z*	X 0.01 50V	Ceramic	AA
	D621		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C59	VCKYPA1HF103Z+	X 0.01 50V	Ceramic	AA
△	D622		RH-DX0131CEZZ*	X Diode	AB	C101	VCEA0A0JW108M+X	1000 6.3V	Electrolytic	AB
▲ △	D651		VHD1SS244// -1*	X 1SS244	AA	C103	VCEA0A1CW108M+X	1000 16V	Electrolytic	AB
▲ △	D652		RH-EX0641GEZZ*	X Zener Diode, 12V	AB	C201	VCKYCY1HB102K*	X 1000p 50V	Ceramic	AA
▲ △	D653		VHD1SS119// -1*	X 1SS119	AA	C202	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
▲ △	D654		VHD1SS119// -1*	X 1SS119	AA	C203	VCKYCY1HB102K*	X 1000p 50V	Ceramic	AA
△	D673		RH-DXA006WJZZ	X Diode	AB	C223	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	D680		RH-DX0484CEZZ	X Diode		C224	VCEA0A1HW474M+X	0.47 50V	Electrolytic	AA
△	D701		RH-DX0477CEZZ	X Diode	AE	C225	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	D707		VHD1SS244// -1*	X 1SS244	AA	C227	VCEA0A1HW106M+X	10 50V	Electrolytic	AA
	D708		VHD1SS244// -1*	X 1SS244	AA	C228	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
△	D709		RH-DXA006WJZZ	X Diode	AB	C229	VCEA0A1CW477M+X	470 16V	Electrolytic	AB
	D712		RH-DX0468CEZZ	X Diode	AB	C231	VCEA0A1EW476M+X	47 25V	Electrolytic	AA
	D725		RH-DX0302CEZZ*	X Diode	AB	C232	VCKYCY1HB222K*	X 2200p 50V	Ceramic	AA
	D726		RH-DX0461CEZZ	X Diode	AB	C233	VCEA0A1HW474M+X	0.47 50V	Electrolytic	AA
	D751		VHD1SS119// -1*	X 1SS119	AA	C234	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
	D752		VHD1SS119// -1*	X 1SS119	AA	C235	VCEA0A1HW106M+X	10 50V	Electrolytic	AA
	D753		VHD1SS119// -1*	X 1SS119	AA	C251	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	D754		VHD1SS119// -1*	X 1SS119	AA	C252	VCEA0A1EW476M+X	47 25V	Electrolytic	AA
	D755		VHD1SS119// -1*	X 1SS119	AA	C302	VCCCCY1HH151J*	X 150p 50V	Ceramic	AA
	D756		VHD1SS119// -1*	X 1SS119	AA	C303	VCCCCY1HH330J*	X 33p 50V	Ceramic	AA
	D757		RH-EX0619GEZZ*	X Zener Diode, 6.2V	AB	C304	VCEA0A1HW475M+X	4.7 50V	Electrolytic	AA
	D904		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C306	VCCCCY1HH330J*	X 33p 50V	Ceramic	AA
	D905		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C307	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	D906		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C312	VCEA0A1EW476M+X	47 25V	Electrolytic	AA
	D907		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C360	VCEA0A1HW475M+X	4.7 50V	Electrolytic	AA
	D908		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C361	VCEA0A1HW105M+X	1 50V	Electrolytic	AA
	D909		RH-EX0631GEZZ*	X Zener Diode, 9.1V	AB	C362	VCKYCY1EB223K*	X 0.022 25V	Ceramic	AA
	D2001		VHD1SS119// -1*	X 1SS119	AA	C363	VCKYCY1EB223K*	X 0.022 25V	Ceramic	AA
	D2040		RH-EX0619GEZZ*	X Zener Diode, 6.2V	AB	C364	VCEA0A1EW127M+X	220 25V	Electrolytic	AB
	D2060		RH-EX0619GEZZ*	X Zener Diode, 6.2V	AB	C365	VCEA0A1HW105M+X	1 50V	Electrolytic	AA
△	IC702		RH-FXA003WJZZ	X PC123Y82	AB	C366	VCEA0A1HW106M+X	10 50V	Electrolytic	AA
PACKAGED CIRCUITS						C367	VCEA0A1VW108M+X	1000 35V	Electrolytic	AB
	TH501		RH-HZ0004GEZZ+	X Thermistor	AB	C368	VCKYPA1HF103Z+	X 0.01 50V	Ceramic	AA
△	VA701		RH-VXA009WJZZ	X Varistor	AB	C369	VCEA0A1CW227M+X	220 16V	Electrolytic	AB
△	PR701		RMPTP0092CEZZ	X Packaged Circuit	AD	C370	VCEA0A1CW227M+X	220 16V	Electrolytic	AB
	X801		RCRSAA010WJZZ	X Crystal	AC	C371	VCEA0A1EW108M+X	1000 25V	Electrolytic	AB
FILTERS						C372	VCEA0A1EW108M+X	1000 25V	Electrolytic	AB
	CF302		RFILC0449CEZZ+	X Filter	AB	C373	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
	CF401		RFILC0446CEZZ+	X Filter	AB	C375	VCEA0A1HW475M+X	4.7 50V	Electrolytic	AA
	SF201		RFILC0405CEZZ	X Filter	AD	C401	VCEA0A1HW106M+X	10 50V	Electrolytic	AA
COILS						C402	VCEA0A1HW106M+X	10 50V	Electrolytic	AA
	L51		VP-CF100K0000*	X Peaking, 10μH	AB	C403	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	L201		VP-XF1R2K0000*	X Peaking, 1.2μH	AA	C429	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
	L203		VP-XF100K0000*	X Peaking, 10μH	AA	C433	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	L204		VP-XF100K0000*	X Peaking, 10μH	AA	C434	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	L231		VP-XF680K0000*	X Peaking, 68μH	AA	C435	VCEA0A1HW105M+X	1 50V	Electrolytic	AA
	L301		VP-XF8R2K0000*	X Peaking, 8.2μH	AA	C436	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	L401		VP-XF100K0000*	X Peaking, 10μH	AA	C437	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
	L671		RCiLZ1005CEZZ	X Coil	AD	C438	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
	L701		RCiLF0345CEZZ	X Coil	AD	C439	VCEA0A1HW106M+X	10 50V	Electrolytic	AA
	L702		RCiLF0345CEZZ	X Coil	AD	C440	VCFYFA1HA224J+	X 0.22 50V	Mylar	AB
	L705		RCiLP0179CEZZ+	X Coil	AB	C451	VCQYTA2AA104K+	X 0.1 100V	Mylar	AB
	L728		RCiLP0179CEZZ+	X Coil	AB	C452	VCEA0A1EW336M+X	33 25V	Electrolytic	AA
	L729		RCiLP0179CEZZ+	X Coil	AB	C471	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
	L801		VP-XF100K0000*	X Peaking, 10μH	AA	C473	VCCCCY1HH331J*	X 330p 50V	Ceramic	AA
	L802		VP-XF100K0000*	X Peaking, 10μH	AA	C474	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
	L2040		RCiLBA003WJZZ	X Oscillation Coil	AB	C475	VCKYCY1CF104Z*	X 0.1 16V	Ceramic	AA
						C476	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
						C501	VCKYPA2HB102K+	X 1000p 500V	Ceramic	AB
						C502	VCEA0A1VW477M+X	470 35V	Electrolytic	AB
						C504	VCEACA1HC474M+X	0.47 50V	Electrolytic	AB
						C505	VCEA0A1HW474M+X	0.47 50V	Electrolytic	AA
						C506	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA
						C507	VCKYCY1HB103K*	X 0.01 50V	Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
PWB-A: DUNTKB567WEW2(32F630) DUNTKB567WEX8(32F631) MAIN UNIT (Continued)									
C510	RC-FZ0272CEZZ+	X	0.39 100V	AB	C805	VCEA0A0JW108M+	X	1000 6.3V	Electrolytic AB
C512	VCEA0A1EW476M+	X	47 25V	Electrolytic AA	C806	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C514	VCEA0A1VW107M+	X	100 35V	Electrolytic AB	C807	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C516	VCKYCY1HB472K*	X	4700p 50V	Ceramic AA	C808	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C518	VCQYTA2AA473J+	X	0.047 100V	Mylar AB	C809	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C522	VCIFYA1HA334J+	X	0.33 50V	AB	C810	VCEA0A1CW477M+	X	470 16V	Electrolytic AB
C523	VCEA0A1HW105M+	X	1 50V	Electrolytic AA	C812	VCQYTA1HM104J+	X	0.1 50V	Mylar AB
C601	VCEA0A1CW477M+	X	470 16V	Electrolytic AB	C901	VCKYCY1HB103K*	X	0.01 50V	Ceramic AA
C602	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA	C902	VCKYCY1HB103K*	X	0.01 50V	Ceramic AA
C603	VCEA0A1HW225M+	X	2.2 50V	Electrolytic AA	C903	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
C604	VCKYCY1EB223K*	X	0.022 25V	Ceramic AA	C904	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C606	VCKYPA2HB102K+	X	1000p 500V	Ceramic AB	C905	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C607	VCKYPA1HB472K+	X	4700p 50V	Ceramic AA	C906	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
C608	RC-KZ0033CEZZ	X	150p 2kV	Ceramic AB	C907	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
▲▲ C609	RCFPVC3ZA223H	X	0.022 1800V	AB	C908	VCKYCY1HB103K*	X	0.01 50V	Ceramic AA
			Metalized Polypro Film		C909	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C611	VCEA0A1EW477M+	X	470 25V	Electrolytic AB	C910	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C614	VCEA0A1EW108M+	X	1000 25V	Electrolytic AB	C911	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C615	VCIFYSB2EB823J	X	0.082 250V	Mylar AB	C912	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C616	VCKYPA2HB471K+	X	470p 500V	Ceramic AB	C913	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C617	VCEA0A1HW474M+	X	0.47 50V	Electrolytic AA	C914	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
C622	VCKYPA2HB102K+	X	1000p 500V	Ceramic AB	C915	VCKYPA1HF103Z+	X	0.01 50V	Ceramic AA
C623	VCEA4A2EN106M+	X	10 250V	Electrolytic AB	C916	VCKYCY1HB103K*	X	0.01 50V	Ceramic AA
C652	VCEA0A1HW476M+	X	47 50V	Electrolytic AB	C917	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C653	VCEA0A1HW106M+	X	10 50V	Electrolytic AA	C918	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
C674	VCKYCY1HB391K*	X	390p 50V	Ceramic AA	C919	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C675	VCEA0A1HW106M+	X	10 50V	Electrolytic AA	C920	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C677	RC-FZ0377CEZZ	X	4.7 50V	Mylar AD	C921	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
▲▲ C678	VCQPPC2GB563J	X	0.056 400V	AB	C922	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C680	RCFPVC3ZA822H	X	8200p 1800V		C923	VCEA0A1CW107M+	X	100 16V	Electrolytic AA
			Metalized Polypro Film		C926	VCEA0A1EW476M+	X	47 25V	Electrolytic AA
▲ C701	RC-FZA022WJZZ	X	0.22 AC250V	AB	C928	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C702	RC-KZ0029CEZZ+	X	0.01 AC250V	Ceramic AB	C930	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
C703	RC-KZ0029CEZZ+	X	0.01 AC250V	Ceramic AB	C931	VCKYCY1HB183K*	X	0.018 50V	Ceramic AA
▲ C705	RC-EZ0722CEZZ	X	820 200V	Electrolytic	C932	VCKYCY1HB183K*	X	0.018 50V	Ceramic AA
▲ C706	RC-KZ0089GEZZA	X	0.001 AC250V	Ceramic AB	C933	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
▲ C707	RC-KZ0092GEZZA	X	0.0033 AC250V	Ceramic AB	C934	VCEA0A1EW476M+	X	47 25V	Electrolytic AA
▲ C723	RC-EZ0724CEZZ	X	100 160V	Electrolytic AC	C935	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
▲ C725	RC-EZA065WJZZ	X	330 160V	Electrolytic AE	C936	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
C726	RC-KZ0226CEZZ+	X	560p 2kV	Ceramic AB	C937	VCKYCY1HB103K*	X	0.01 50V	Ceramic AA
C727	RC-KZ0226CEZZ+	X	560p 2kV	Ceramic AB	C953	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
C729	VCEA0A1HW106M+	X	10 50V	Electrolytic AA	C956	VCEA0A1CW477M+	X	470 16V	Electrolytic AB
C730	VCEA4A1VN108M+	X	1000 35V	Electrolytic AC	C1434	VCEA0A1EW476M+	X	47 25V	Electrolytic AA
C731	RC-EZ0385CEZZ+	X	1000 16V	Electrolytic AB	C1437	VCEA0A1EW476M+	X	47 25V	Electrolytic AA
C732	VCKYPA2HB102K+	X	1000p 500V	Ceramic AB	C2001	VCCCCY1HH101J*	X	100p 50V	Ceramic AA
C733	VCKYPA2HB102K+	X	1000p 500V	Ceramic AB	C2002	VCKYCY1HF103Z*	X	0.01 50V	Ceramic AA
C734	VCKYPA2HB471K+	X	470p 500V	Ceramic AB	C2025	VCCCCY1HH101J*	X	100p 50V	Ceramic AA
C735	VCKYPA2HB471K+	X	470p 500V	Ceramic AB	C2040	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C736	VCKYCY1HF103Z*	X	0.01 50V	Ceramic AA	C2041	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
C737	VCEA0A1HW226M+	X	22 50V	Electrolytic AA	C2043	VCCCCY1HH331J*	X	330p 50V	Ceramic AA
C738	RCFPVC3CA102H	X	1000p 1600V	AB	C2044	VCCCCY1HH100D*	X	10p 50V	Ceramic AA
			Metalized Polypro Film		C2046	VCEA0A1EW476M+	X	47 25V	Electrolytic AA
C739	RC-EZ0385CEZZ+	X	1000 16V	Electrolytic AB	C2060	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C740	VCEA0A1HW476M+	X	47 50V	Electrolytic AB	C2061	VCCCCY1HH101J*	X	100p 50V	Ceramic AA
C741	VCEA4A2AN105M+	X	1 100V	Electrolytic AA	C2062	VCEA0A1CW107M+	X	100 16V	Electrolytic AA
C743	RC-KZ0036CEZZ+	X	330p 2kV	Ceramic AB	C2063	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C744	VCKYPA2HB471K+	X	470p 500V	Ceramic AB	C2064	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
C745	VCKYPA2HB102K+	X	1000p 500V	Ceramic AB	C2201	VCKYCY1HB681K*	X	680p 50V	Ceramic AA
C746	VCKYPA2HB102K+	X	1000p 500V	Ceramic AB	C2202	VCCCCY1HH330J*	X	33p 50V	Ceramic AA
C747	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA	C2501	VCKYCY1HB102K*	X	1000p 50V	Ceramic AA
C749	VCEA0A1HW105M+	X	1 50V	Electrolytic AA				(32F631)	
C753	RC-KZ0036CEZZ+	X	330p 2kV	Ceramic AB	C2601	VCEA0A1EW476M+	X	47 25V	Electrolytic AA
C754	VCKYPA2HB472K+	X	4700p 500V	Ceramic AB				(32F630)	
C755	VCEA0A1EW476M+	X	47 25V	Electrolytic AA	C2602	VCCCCY1HH101J*	X	100p 50V	Ceramic AA
C783	VCQYTA1HM103J+	X	0.01 50V	Mylar AA				(32F630)	
C784	VCKYCY1HF103Z*	X	0.01 50V	Ceramic AA	C2603	VCCCCY1HH101J*	X	100p 50V	Ceramic AA
C801	VCCCCY1HH110J*	X	11p 50V	Ceramic AA				(32F631)	
C802	VCKYCY1HB222K*	X	2200p 50V	Ceramic AA	C3001	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
C803	VCEA0A1HW224M+	X	0.22 50V	Electrolytic AA	C3002	VCKYCY1HB562K*	X	5600p 50V	Ceramic AA
C804	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA	C3003	VCKYCY1EB123K*	X	0.012 25V	Ceramic AA
					C3004	VCEA0A1HW105M+	X	1 50V	Electrolytic AA
					C3005	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
					C3006	VCEA0A1HW106M+	X	10 50V	Electrolytic AA
					C3007	VCEA0A1HW475M+	X	4.7 50V	Electrolytic AA
					C3008	VCKYCY1CF104Z*	X	0.1 16V	Ceramic AA
					C3009	VCEA0A1CW477M+	X	470 16V	Electrolytic AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
PWB-A: DUNTKB567WEW2(32F630)									
DUNTKB567WEX8(32F631)									
MAIN UNIT (Continued)									
C3010	VCE9GA1HW475M+X	4.7	50V	Electrolytic	AB	R363	VR5-CY1JF182J*	X 1.8k 1/16W	Metal Oxide AA
C3011	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AA	R364	VRD-RA2BE152J*	X 1.5k 1/8W	Carbon AA
C3012	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AA	R365	VR5-CY1JF152J*	X 1.5k 1/16W	Metal Oxide AA
C3013	VCKYCY1HB272K* X	2700p	50V	Ceramic	AA	△ R367	VRN-RL3DB1R2J+	X 1.2 2W	Metal Film AB
C3014	VCKYCY1CB473K* X	0.047	16V	Ceramic	AA	R368	VRD-RA2BE222J*	X 2.2k 1/8W	Carbon AA
C3015	VCEACA1HC335K+X	3.3	50V	Electrolytic	AB	R369	VRD-RA2BE822J*	X 8.2k 1/8W	Carbon AA
C3016	VCE9GA1HW475M+X	4.7	50V	Electrolytic	AB	R371	VR5-CY1JF102J*	X 1k 1/16W	Metal Oxide AA
C3017	VCEACA1CC106K+X	10	16V	Electrolytic	AB	R372	VR5-CY1JF223J*	X 22k 1/16W	Metal Oxide AA
C3018	VCEA0A1HW105M+X	1	50V	Electrolytic	AA	R403	VR5-CY1JF000J*	X 0 1/16W	Metal Oxide AA
C3021	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AA	R404	VR5-CY1JF683J*	X 68k 1/16W	Metal Oxide AA
C3022	VCEA0A1HW475M+X	4.7	50V	Electrolytic	AA	R406	VR5-CY1JF473J*	X 47k 1/16W	Metal Oxide AA
C3025	VCKYCY1CB473K* X	0.047	16V	Ceramic	AA	R407	VR5-CY1JF102J*	X 1k 1/16W	Metal Oxide AA
C3027	VCKYCY1CB473K* X	0.047	16V	Ceramic	AA	R408	VR5-CY1JF683J*	X 68k 1/16W	Metal Oxide AA
C3028	VCKYCY1HB682K* X	6800p	50V	Ceramic	AA	R410	VR5-CY1JF473J*	X 47k 1/16W	Metal Oxide AA
C3029	VCKYCY1HB682K* X	6800p	50V	Ceramic	AA	R411	VR5-CY1JF102J*	X 1k 1/16W	Metal Oxide AA
RESISTORS					R412	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA	
RJ1	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R413	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ1	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R414	VR5-CY1JF000J*	X 0 1/16W	Metal Oxide AA
RJ1	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R415	VR5-CY1JF000J*	X 0 1/16W	Metal Oxide AA
RJ2	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R422	VR5-CY1JF000J*	X 0 1/16W	Metal Oxide AA
RJ2	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R430	VR5-CY1JF391J*	X 390 1/16W	Metal Oxide AA
RJ3	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R431	VR5-CY1JF331J*	X 330 1/16W	Metal Oxide AA
RJ4	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R432	VR5-CY1JF102J*	X 1k 1/16W	Metal Oxide AA
RJ5	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R436	VR5-CY1JF000J*	X 0 1/16W	Metal Oxide AA
RJ5	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R437	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ5	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R438	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
	(32F631)				R439	VR5-CY1JF104J*	X 100k 1/16W	Metal Oxide AA	
RJ6	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R441	VR5-CY1JF472J*	X 4.7k 1/16W	Metal Oxide AA
RJ7	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R442	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ8	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R444	VR5-CY1JF332J*	X 3.3k 1/16W	Metal Oxide AA
RJ9	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R445	VR5-CY1JF332J*	X 3.3k 1/16W	Metal Oxide AA
RJ10	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R446	VR5-CY1JF332J*	X 3.3k 1/16W	Metal Oxide AA
RJ11	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R447	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ12	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R448	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ13	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R449	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ14	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R450	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
RJ15	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	△ R451	VRN-RG3AB103J+	X 10k 1W	Metal Oxide AB
RJ16	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R452	VRD-RM2HD823J*	X 82k 1/2W	Carbon AA
RJ19	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R453	VRD-RM2HD223J*	X 22k 1/2W	Carbon AA
RJ20	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R454	VR5-CY1JF471J*	X 470 1/16W	Metal Oxide AA
RJ21	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R456	VR5-CY1JF103J*	X 10k 1/16W	Metal Oxide AA
RJ22	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R460	VR5-CY1JF471J*	X 470 1/16W	Metal Oxide AA
RJ23	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R461	VR5-CY1JF562J*	X 5.6k 1/16W	Metal Oxide AA
RJ25	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R462	VR5-CY1JF223J*	X 22k 1/16W	Metal Oxide AA
R54	VR5-CY1JF101J*	X 100	1/16W	Metal Oxide	AA	R463	VRD-RA2EE680J*	X 68 1/4W	Carbon AA
R55	VR5-CY1JF101J*	X 100	1/16W	Metal Oxide	AA	R464	VR5-CY1JF683J*	X 68k 1/16W	Metal Oxide AA
R56	VRD-RA2BE823J*	X 82k	1/8W	Carbon	AA	R467	VR5-CY1JF123J*	X 12k 1/16W	Metal Oxide AA
R57	VR5-CY1JF473J*	X 47k	1/16W	Metal Oxide	AA	R471	VR5-CY1JF333J*	X 33k 1/16W	Metal Oxide AA
R201	VR5-CY1JF151J*	X 150	1/16W	Metal Oxide	AA	R472	VR5-CY1JF273J*	X 27k 1/16W	Metal Oxide AA
R202	VR5-CY1JF122J*	X 1.2k	1/16W	Metal Oxide	AA	R473	VR5-CY1JF471J*	X 470 1/16W	Metal Oxide AA
R203	VR5-CY1JF682J*	X 6.8k	1/16W	Metal Oxide	AA	R474	VR5-CY1JF681J*	X 680 1/16W	Metal Oxide AA
R204	VR5-CY1JF270J*	X 27	1/16W	Metal Oxide	AA	R475	VR5-CY1JF102J*	X 1k 1/16W	Metal Oxide AA
R205	VR5-CY1JF331J*	X 330	1/16W	Metal Oxide	AA	R476	VR5-CY1JF393J*	X 39k 1/16W	Metal Oxide AA
R206	VRD-RA2BE101J*	X 100	1/8W	Carbon	AA	R477	VR5-CY1JF182J*	X 1.8k 1/16W	Metal Oxide AA
R211	VR5-CY1JF221J*	X 220	1/16W	Metal Oxide	AA	R478	VR5-CY1JF151J*	X 150 1/16W	Metal Oxide AA
R212	VR5-CY1JF221J*	X 220	1/16W	Metal Oxide	AA	R479	VR5-CY1JF473J*	X 47k 1/16W	Metal Oxide AA
R225	VR5-CY1JF101J*	X 100	1/16W	Metal Oxide	AA	R480	VR5-CY1JF223J*	X 22k 1/16W	Metal Oxide AA
R226	VR5-CY1JF101J*	X 100	1/16W	Metal Oxide	AA	R481	VR5-CY1JF152J*	X 1.5k 1/16W	Metal Oxide AA
R227	VR5-CY1JF273J*	X 27k	1/16W	Metal Oxide	AA	R482	VR5-CY1JF100J*	X 10 1/16W	Metal Oxide AA
R232	VR5-CY1JF471J*	X 470	1/16W	Metal Oxide	AA	R483	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
R234	VRD-RA2BE271J*	X 270	1/8W	Carbon	AA	△ R501	VRN-RL3ABR47J+	X 0.47 1W	Metal Film AB
R236	VR5-CY1JF332J*	X 3.3k	1/16W	Metal Oxide	AA	R502	VRN-RA2BK822F*	X 8.2k 1/8W	Metal Film AA
R301	VR5-CY1JF222J*	X 2.2k	1/16W	Metal Oxide	AA	R503	VR5-CY1JF105J*	X 1M 1/16W	Metal Oxide AA
R305	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R504	VR5-CY1JF154J*	X 150k 1/16W	Metal Oxide AA
R306	VR5-CY1JF102J*	X 1k	1/16W	Metal Oxide	AA	R505	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA
R307	VR5-CY1JF101J*	X 100	1/16W	Metal Oxide	AA	R510	VRN-RA2BK103F*	X 10k 1/8W	Metal Film AA
R308	VR5-CY1JF000J*	X 0	1/16W	Metal Oxide	AA	R511	VRN-RA2BK222F*	X 2.2k 1/8W	Metal Film AA
R361	VRD-RA2BE224J*	X 220k	1/8W	Carbon	AA	R512	VRN-RA2BK272F*	X 2.7k 1/8W	Metal Film AA
R362	VR5-CY1JF182J*	X 1.8k	1/16W	Metal Oxide	AA	R513	VRD-RM2HD1R5J*	X 1.5 1/2W	Carbon AA
					R517	VR5-CY1JF104J*	X 100k 1/16W	Metal Oxide AA	
					R518	VR5-CY1JF102J*	X 1k 1/16W	Metal Oxide AA	
					R521	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA	
					△ R523	VRN-RL3DBR82J+	X 0.82 2W	Metal Film AB	
					△ R524	VRN-RG3AB561J+	X 560 1W	Metal Oxide AB	
					R601	VR5-CY1JF101J*	X 100 1/16W	Metal Oxide AA	
					R603	VRD-RA2BE472J*	X 4.7k 1/8W	Carbon AA	

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
PWB-A: DUNTKB567WEW2(32F630)									
DUNTKB567WEX8(32F631)									
MAIN UNIT (Continued)									
△ R604	VRS-KA3NG122J	X	1.2k 7W	Metal Oxide	R801	VRS-CY1JF333J*	X	33k 1/16W	Metal Oxide AA
R605	VRD-RM2HD331J*	X	330 1/2W	Carbon	R802	VRS-CY1JF471J*	X	470 1/16W	Metal Oxide AA
R606	VRD-RM2HD331J*	X	330 1/2W	Carbon	R803	VRS-CY1JF000J*	X	0 1/16W	Metal Oxide AA
△ R609	VRS-RG3DB332J+	X	3.3k 2W	Metal Oxide	R805	VRS-CY1JF682J*	X	6.8k 1/16W	Metal Oxide AA
R610	VRD-RM2HD220J*	X	22 1/2W	Carbon	R806	VRS-CY1JF681J*	X	680 1/16W	Metal Oxide AA
△ R611	VRW-KQ41C3R3K	X	3.3 15W	Cement	R807	VRS-CY1JF681J*	X	680 1/16W	Metal Oxide AA
R612	VRS-CY1JF154J*	X	150k 1/16W	Metal Oxide	R808	VRS-CY1JF681J*	X	680 1/16W	Metal Oxide AA
R613	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide	R810	VRS-CY1JF472J*	X	4.7k 1/16W	Metal Oxide AA
R614	VRS-CY1JF562J*	X	5.6k 1/16W	Metal Oxide	R903	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
R618	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide	R904	VRS-CY1JF683J*	X	68k 1/16W	Metal Oxide AA
△ R621	VRN-RL3ABR33J+	X	3.3 1W	Metal Film	R905	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
△ R622	VRN-RL3ABR33J+	X	0.33 1W	Metal Film	R906	VRD-RA2BE332J*	X	3.3k 1/8W	Carbon
△ R623	VRN-RL3ABR47J+	X	4.7 1W	Metal Film	R907	VRS-CY1JF152J*	X	1.5k 1/16W	Metal Oxide AA
△ R624	VRS-RG3DB332J+	X	3.3k 2W	Metal Oxide	R908	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
△ R627	VRN-RL3ABR47J+	X	0.47 1W	Metal Film	R910	VRD-RA2BE102J*	X	1k 1/8W	Carbon
△ R628	VRN-RL3ABR47J+	X	0.47 1W	Metal Film	R911	VRS-CY1JF683J*	X	68k 1/16W	Metal Oxide AA
▲ R651	VRS-RG2HC270J+	X	27 1/2W	Metal Oxide	R912	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
▲ R652	VRD-RA2EE103G*	X	10k 1/4W	Carbon	R913	VRS-CY1JF332J*	X	3.3k 1/16W	Metal Oxide AA
▲ R653	VRD-RA2EE562G*	X	5.6k 1/4W	Carbon	R914	VRS-CY1JF152J*	X	1.5k 1/16W	Metal Oxide AA
▲ R654	VRD-RA2BE683J*	X	68k 1/8W	Carbon	R915	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
△ R658	VRS-RG3LB333J+	X	33k 3W	Metal Oxide	R916	VRS-CY1JF683J*	X	68k 1/16W	Metal Oxide AA
R663	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide	R917	VRS-CY1JF332J*	X	3.3k 1/16W	Metal Oxide AA
R670	VRS-CY1JF000J*	X	0 1/16W	Metal Oxide	R918	VRS-CY1JF332J*	X	3.3k 1/16W	Metal Oxide AA
R684	VRD-RA2BE472J*	X	4.7k 1/8W	Carbon	R922	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
R685	VRD-RA2BE822J*	X	8.2k 1/8W	Carbon	R923	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
R686	VRD-RA2EE332J*	X	3.3k 1/4W	Carbon	R924	VRS-CY1JF750J*	X	75 1/16W	Metal Oxide AA
R687	VRD-RA2BE103J*	X	10k 1/8W	Carbon	R925	VRS-CY1JF750J*	X	75 1/16W	Metal Oxide AA
△ R688	VRN-RL3DB3R3J+	X	3.3 2W	Metal Film	R926	VRS-CY1JF680J*	X	68 1/16W	Metal Oxide AA
R689	VRD-RM2HD824J*	X	820k 1/2W	Carbon	R927	VRS-CY1JF750J*	X	75 1/16W	Metal Oxide AA
R695	VRS-CY1JF683J*	X	68k 1/16W	Metal Oxide	R929	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide AA
△ R701	RR-DZ0049CEZZ*	X	3.9M 1/2W	Solid	R930	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide AA
△ R703	VRW-KQ4AC1R2K	X	1.2 10W	Cement	R931	VRS-CY1JF750J*	X	75 1/16W	Metal Oxide AA
△ R705	VRN-RL3DBR15J+	X	0.15 2W	Metal Film	R932	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide AA
△ R706	VRN-RL3DBR15J+	X	0.15 2W	Metal Film	R933	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide AA
R707	VRD-RM2HD270J*	X	27 1/2W	Carbon	R934	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide AA
R708	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide	R935	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R709	VRS-CY1JF000J*	X	0 1/16W	Metal Oxide	R936	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
△ R710	VRS-RG2HC103J+	X	10k 1/2W	Metal Oxide	R937	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R711	VRS-CY1JF334J*	X	330k 1/16W	Metal Oxide	R938	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
R712	VRD-RM2HD100J*	X	10 1/2W	Carbon	R939	VRS-CY1JF333J*	X	33k 1/16W	Metal Oxide AA
△ R713	VRS-RG2HC122J+	X	1.2k 1/2W	Metal Oxide	R940	VRS-CY1JF8R2J*	X	8.2 1/16W	Metal Oxide AA
R715	VRD-RM2HD5R6J*	X	5.6 1/2W	Carbon	R941	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R716	VRD-RM2HD100J*	X	10 1/2W	Carbon	R942	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
R720	VRD-RA2BE473J*	X	47k 1/8W	Carbon	R943	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R724	VRS-CY1JF000J*	X	0 1/16W	Metal Oxide	R944	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
R725	VRD-RM2HD821J*	X	820 1/2W	Carbon	R945	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R734	VRD-RM2HD124J*	X	120k 1/2W	Carbon	R946	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide AA
△ R737	VRN-RL3LBR82J+	X	0.82 3W	Metal Film	R947	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
R742	VRD-RA2BE222J*	X	2.2k 1/8W	Carbon	R948	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R743	VRD-RM2HD470J*	X	47 1/2W	Carbon	R949	VRS-CY1JF223J*	X	22k 1/16W	Metal Oxide AA
R751	VRD-RA2BE473J*	X	47k 1/8W	Carbon	R950	VRS-CY1JF750J*	X	75 1/16W	Metal Oxide AA
R752	VRD-RA2BE392J*	X	3.9k 1/8W	Carbon	R951	VRD-RA2BE680J*	X	68 1/8W	Carbon
R753	VRS-CY1JF222J*	X	2.2k 1/16W	Metal Oxide	R952	VRS-CY1JF333J*	X	33k 1/16W	Metal Oxide AA
R754	VRS-CY1JF222J*	X	2.2k 1/16W	Metal Oxide	R954	VRS-CY1JF221J*	X	220 1/16W	Metal Oxide AA
R755	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide	R955	VRS-CY1JF221J*	X	220 1/16W	Metal Oxide AA
R756	VRD-RA2BE152J*	X	1.5k 1/8W	Carbon	R957	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
△ R757	VRN-RL3DBR47J+	X	4.7 2W	Metal Film	R958	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R759	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide	R959	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide AA
R761	VRS-CY1JF332J*	X	3.3k 1/16W	Metal Oxide	R960	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R762	VRD-RA2BE103J*	X	10k 1/8W	Carbon	R961	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
R764	VRD-RM2HD562J*	X	5.6k 1/2W	Carbon	R962	VRS-CY1JF332F*	X	3.3k 1/16W	Metal Oxide AA
R767	VRD-RM2HD151J*	X	150 1/2W	Carbon	R963	VRD-RA2BE101J*	X	100 1/8W	Carbon
R768	VRD-RA2BE473J*	X	47k 1/8W	Carbon	R964	VRS-CY1JF152J*	X	1.5k 1/16W	Metal Oxide AA
R770	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide	R967	VRS-CY1JF682J*	X	6.8k 1/16W	Metal Oxide AA
R771	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide	R968	VRS-CY1JF102J*	X	1k 1/16W	Metal Oxide AA
R772	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide	R969	VRS-CY1JF472F*	X	4.7k 1/16W	Metal Oxide AA
R773	VRD-RM2HD823J*	X	82k 1/2W	Carbon	R970	VRD-RA2BE6R8J*	X	6.8 1/8W	Carbon
R774	VRD-RA2BE272J*	X	2.7k 1/8W	Carbon	R971	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R775	VRS-CY1JF332J*	X	3.3k 1/16W	Metal Oxide	R972	VRS-CY1JF101J*	X	100 1/16W	Metal Oxide AA
R776	VRS-CY1JF332J*	X	3.3k 1/16W	Metal Oxide	R973	VRS-CY1JF000J*	X	0 1/16W	Metal Oxide AA
					R974	VRS-CY1JF103J*	X	10k 1/16W	Metal Oxide AA
					R975	VRS-CY1JF333J*	X	33k 1/16W	Metal Oxide AA
					R982	VRS-CY1JF750J*	X	75 1/16W	Metal Oxide AA
								(32F630)	
					R983	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide AA
					R984	VRS-CY1JF473J*	X	47k 1/16W	Metal Oxide AA

Ref. No.	Part No.	★	Description	Code
PWB-A: DUNTKB567WEW2(32F630) DUNTKB567WEX8(32F631) MAIN UNIT (Continued)				
△ R1420	VRN-RL3LB2R7J+	X	2.7 3W Metal Film	AB
R2001	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R2004	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2008	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R2010	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R2013	VRN-CY1JF682J*	X	6.8k 1/16W Metal Oxide	AA
R2021	VRN-CY1JF334J*	X	330k 1/16W Metal Oxide	AA
R2024	VRN-CY1JF472J*	X	4.7k 1/16W Metal Oxide	AA
R2025	VRN-CY1JF472J*	X	4.7k 1/16W Metal Oxide	AA
R2026	VRN-CY1JF472J*	X	4.7k 1/16W Metal Oxide	AA
R2027	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R2028	VRD-RA2BE102J*	X	1k 1/8W Carbon	AA
R2031	VRN-CY1JF222J*	X	2.2k 1/16W Metal Oxide	AA
R2033	VRN-CY1JF334J*	X	330k 1/16W Metal Oxide	AA
R2040	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R2041	VRN-CY1JF333J*	X	33k 1/16W Metal Oxide	AA
R2042	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2043	VRN-CY1JF333J*	X	33k 1/16W Metal Oxide	AA
R2044	VRN-CY1JF153J*	X	15k 1/16W Metal Oxide	AA
R2046	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2047	VRN-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R2048	VRN-CY1JF562J*	X	5.6k 1/16W Metal Oxide	AA
R2051	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R2060	VRN-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R2061	VRN-CY1JF562J*	X	5.6k 1/16W Metal Oxide	AA
R2062	VRN-CY1JF223J*	X	22k 1/16W Metal Oxide	AA
R2063	VRN-CY1JF222J*	X	2.2k 1/16W Metal Oxide	AA
R2064	VRN-CY1JF332J*	X	3.3k 1/16W Metal Oxide	AA
R2073	VRN-CY1JF000J*	X	0 1/16W Metal Oxide	AA
R2084	VRN-CY1JF103J*	X	10k 1/16W Metal Oxide	AA
R2086	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2090	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2092	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2101	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2102	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R2201	VRN-CY1JF222J*	X	2.2k 1/16W Metal Oxide	AA
R2202	VRN-CY1JF103J*	X	10k 1/16W Metal Oxide	AA
R2203	VRN-CY1JF473J*	X	47k 1/16W Metal Oxide	AA
R2211	VRN-CY1JF222J*	X	2.2k 1/16W Metal Oxide	AA
R2212	VRN-CY1JF682J*	X	6.8k 1/16W Metal Oxide	AA
R2213	VRN-CY1JF333J*	X	33k 1/16W Metal Oxide	AA
R2401	VRD-RA2BE101J*	X	100 1/8W Carbon	AA
R2402	VRD-RA2BE101J*	X	100 1/8W Carbon	AA
R2403	VRD-RA2BE101J*	X	100 1/8W Carbon	AA
R2404	VRD-RA2BE101J*	X	100 1/8W Carbon	AA
R2501	VRN-CY1JF183J*	X	18k 1/16W Metal Oxide	AA
R2502	VRN-CY1JF183J*	X	18k 1/16W Metal Oxide	AA
R2503	VRN-CY1JF103J*	X	10k 1/16W Metal Oxide	AA
R2504	VRN-CY1JF103J*	X	10k 1/16W Metal Oxide	AA
R2505	VRD-RA2BE822J*	X	8.2k 1/8W Carbon	AA
			(32F630)	
R2506	VRD-RA2BE822J*	X	8.2k 1/8W Carbon	AA
			(32F630)	
R2507	VRD-RA2BE183J*	X	18k 1/8W Carbon	AA
			(32F630)	
R2508	VRD-RA2BE183J*	X	18k 1/8W Carbon	AA
			(32F630)	
R2509	VRN-CY1JF000J*	X	0 1/16W Metal Oxide	AA
R2601	VRD-RA2BE100J*	X	10 1/8W Carbon	AA
			(32F630)	
R2603	VRN-CY1JF000J*	X	0 1/16W Metal Oxide	AA
			(32F630)	
R2605	VRN-CY1JF000J*	X	0 1/16W Metal Oxide	AA
			(32F630)	
R2606	VRN-CY1JF000J*	X	0 1/16W Metal Oxide	AA
			(32F630)	
R3001	VRN-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R3002	VRN-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R3003	VRN-CY1JF105J*	X	1M 1/16W Metal Oxide	AA
R3004	VRN-CY1JF104J*	X	100k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R3005	VRN-CY1JF623J*	X	62k 1/16W Metal Oxide	AA
R3007	VRN-CY1JF332J*	X	3.3k 1/16W Metal Oxide	AA
R3008	VRN-CY1JF302J*	X	3k 1/16W Metal Oxide	AA
R3010	VRN-CY1JF392J*	X	3.9k 1/16W Metal Oxide	AA
R3017	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R3018	VRN-CY1JF102J*	X	1k 1/16W Metal Oxide	AA
R3019	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R3020	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R3021	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R3023	VRN-CY1JF101J*	X	100 1/16W Metal Oxide	AA
R3024	VRD-RA2BE102J*	X	1k 1/8W Carbon	AA

SWITCHES

S2501	QSW-KA003WJZZ+	X	Switch, POWER (32F630)	AB
S2502	QSW-KA003WJZZ+	X	Switch, MENU (32F630)	AB
S2503	QSW-KA003WJZZ+	X	Switch, VOL.-DOWN (32F630)	AB
S2504	QSW-KA003WJZZ+	X	Switch, VOL.-UP (32F630)	AB
S2505	QSW-KA003WJZZ+	X	Switch, CH-DOWN (32F630)	AB
S2506	QSW-KA003WJZZ+	X	Switch, CH-UP (32F630)	AB

BALUNES

FB601	RBLN-0047CEZZ*	X	Balun	AB
FB706	RBLN-0037CEZZ*	X	Balun	AA
FB2001	RBLN-0037CEZZ*	X	Balun	AA

MISCELLANEOUS PARTS

	QPWBFB567WJN2	X	Printed Wiring Board	AT
△ ACC701	QACCD A012WJPZ	X	AC Cord	AE
FH701	QFSDH1013CEZZ+	X	Fuse Holder	AA
FH702	QFSDH1014CEZZ+	X	Fuse Holder	AA
△ F701	QFS-B4023CEZZ	X	Fuse, 4A/125V	AB
J904	QJAKGA031WJZZ	X	Front In Jack(32F630)	AC
J921	QSOCD0430CEZZ	X	S-Video Terminal	AC
J1401	QTANJ1101SEZZ	X	In Out Jack	AF
P361	QPLGN0461CEZZA	X	Plug, 4Pin(S1-4)	AB
P401	QPLGN0861CEZZA	X	Plug, 8Pin(CJ)	AB
P601	QPLGN0161FJZZ	X	Plug, 6Pin(K1-6)	AB
P602	QPLGN0761CEZZA	X	Plug, 7Pin(XA)	AB
P603	QPLGN0161FJZZ	X	Plug, 6Pin(XB)	AB
P604	QPLGN0157FJZZ	X	Plug, 2Pin(XC)	
P621	QPLGN0761CEZZA	X	Plug, 7Pin(N)	AB
P651	QPLGN0361CEZZA	X	Plug, 3Pin(TP651-3)	AB
P702	QPLGN0269GEZZ	X	Plug, 2Pin(P1-2)	AB
P703	QPLGN0260CEZZ	X	Plug, 2Pin(M1-2)	AB
P1301	QPLGN0661CEZZA	X	Plug, 6Pin(EJ)(32F631)	AB
P2003	QPLGN0561CEZZA	X	Plug, 5Pin(KA)(32F631)	AB
P2401	QPLGN0661CEZZA	X	Plug, 6Pin	AB
RDA361	PRDAR0258PEFW	X	Heat Sink for IC361	AC
RDA501	PRDARA039WJFW	X	Heat Sink for IC501	AD
RDA601	PRDARA041WJFW	X	Heat Sink for Q602	AD
RDA671	PRDARA057WJFW	X	Heat Sink for Q673	AC
RDA701	PRDAR0279PEFW	X	Heat Sink for Q701	AB
RDA750	PRDAR5072CEFW	X	Heat Sink for IC751	AB
RDA1403	PRDAR5072CEFW	X	Heat Sink for IC1403	AB
RMC2601	RRMCU0222CEZZ	X	Remote Receiver(32F630)	AD
RY701	RRLYJ0081CEZZ	X	Relay	AD
SG601	QSPGH0025CEZZ	X	Spark Gap	
CF2040	RCRM-0003CEZZ+	X	Ceramic Vibrator	AC
TP701	QLUGP0102PEZZ	X	Lug	AA

PWB-B: DUNTKA527WEV9
CRT UNIT**INTEGRATED CIRCUIT**

△ IC850	VHITDA6103Q-1	X	TDA6103Q/N3	AG
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Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
PWB-B: DUNTKA527WEV9									
CRT UNIT (Continued)									
TRANSISTORS									
Q850	VS2SA1266-Y-1+	X	2SA1266-Y	AB	R1520	VRD-RA2BE683J*	X	68k 1/8W Carbon	AA
Q851	VS2SC3198-G-1+	X	2SC3198-G	AB	R1521	VRD-RA2BE122J*	X	1.2k 1/8W Carbon	AA
Q1504	VS2SC3198-G-1+	X	2SC3198-G	AB	R1525	VRD-RA2EE560J*	X	56 1/4W Carbon	AA
Q1505	VS2SA1266-Y-1+	X	2SA1266-Y	AB	R1526	VRD-RA2EE560J*	X	56 1/4W Carbon	AA
Q1506	VS2SA1964E/-1	X	2SA1964E	AC	R1527	VRD-RM2HD1R5J*	X	1.5 1/2W Carbon	AA
Q1507	VS2SC5248E/-1	X	2SC5248E	AC	R1528	VRD-RM2HD1R5J*	X	1.5 1/2W Carbon	AA
					△ R1529	VRS-VV3DB221J	X	220 2W Metal Oxide	AB
					R1530	VRD-RA2BE122J*	X	1.2k 1/8W Carbon	AA
					BALUN				
					FB1501RBLN-0020CEZZ+	X	Balun		AB
DIODES					MISCELLANEOUS PARTS				
D853	RH-EX0647GEZZ*	X	Zener Diode, 15V	AB	△ P852	QPLGN0341CEZZ	X	Plug, 3Pin(PU1-3)	
D854	VHD1SS119/-1*	X	1SS119	AA	P854	QPLGN0741CEZZ	X	Plug, 7Pin(N) AB	
D855	VHD1SS119/-1*	X	1SS119	AA	P860	QPLGN0841CEZZ	X	Plug, 8Pin(Cj)	AB
D1502	VHD1SS119/-1*	X	1SS119	AA	RDA850	PRDAR0248PEFW	X	Heat Sink for IC850	AB
D1503	VHD1SS119/-1*	X	1SS119	AA	RDA1506	PRDAR5072CEFW	X	Heat Sink for Q1506	AB
D1506	RH-DX0487CEZZ*	X	Diode	AB	RDA1507	PRDAR5072CEFW	X	Heat Sink for Q1507	AB
D1507	RH-DX0487CEZZ*	X	Diode	AB	SC850	QSOCV0936CEZZ	X	Socket, 12Pin	
D1510	VHD1SS119/-1*	X	1SS119	AA					
CAPACITORS									
C850	VCFYSB2EB823J	X	0.082 250V	AB					
C851	RC-KZ018JCEZZ	X	0.01 AC250V Ceramic	AB					
C852	VCEA0A1CW107M+X	100	16V Electrolytic	AA					
C853	VCFYFA1HA224J+	X	0.22 50V Mylar	AB					
C854	VCEA0A1CW227M+X	220	16V Electrolytic	AB					
C855	VCEA0A2EW336M+X	33	250V Electrolytic	AB					
C856	VCEA0A1HW106M+X	10	50V Electrolytic	AA					
C1501	VCEA0A1CW476M+X	47	16V Electrolytic	AA					
C1506	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA					
C1508	VCKYPA2HB472K+	X	4700p 500V Ceramic	AB					
C1509	VCKYPA1HB472K+	X	4700p 50V Ceramic	AA					
C1510	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA					
C1511	VCKYPA1HF103Z+	X	0.01 50V Ceramic	AA					
C1515	VCEA0A1HW476M+X	47	50V Electrolytic	AB					
C1516	VCEA0A1HW476M+X	47	50V Electrolytic	AB					
C1517	VCEA0A2AW106M+X	10	100V Electrolytic	AB					
C1518	VCCSPA2HL560K+	X	56p 500V Ceramic	AB					
C1519	VCEA0A2CW106M+X	10	160V Electrolytic	AB					
					PWB-C: DUNTKB573WEV0				
					3-LINE Y/C UNIT				
					INTEGRATED CIRCUIT				
					IC1401	VHiTC90A53F-1*	X	TC90A53F	AP
					TRANSISTORS				
					Q1401	VS2SD601AR/-1*	X	2SD601AR	AA
					Q1402	VS2SD601AR/-1*	X	2SD601AR	AA
					Q1403	VS2SB709AR/-1*	X	2SB709AR	AA
					Q1404	VS2SD601AR/-1*	X	2SD601AR	AA
					Q1406	VS2SB709AR/-1*	X	2SB709AR	AA
					Q1407	VS2SD601AR/-1*	X	2SD601AR	AA
					Q1408	VS2SB709AR/-1*	X	2SB709AR	AA
					COILS				
					L1401	VP-XF100K0000*	X	Peaking, 10μH	AA
					L1402	VP-XF100K0000*	X	Peaking, 10μH	AA
					L1406	VP-XF220K0000*	X	Peaking, 22μH	AA
					L1407	VP-XF220K0000*	X	Peaking, 22μH	AA
					L1408	VP-XF100K0000*	X	Peaking, 10μH	AA
					L1410	VP-XF100K0000*	X	Peaking, 10μH	AA
					L1414	VP-XF330K0000*	X	Peaking, 33μH	AA
					L1417	VP-XF220K0000*	X	Peaking, 22μH	AA
					CAPACITORS				
					C1412	VCEA0A1HW106M+X	10	50V Electrolytic	AA
					C1413	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA
					C1414	VCCCCY1HH3R0C*	X	3p 50V Ceramic	AA
					C1415	VCE9GA1CW106M+X	10	16V Electrolytic	AB
					C1416	VCEA0A1CW477M+X	470	16V Electrolytic	AB
					C1417	VCKYCY1CF104Z*	X	0.1 16V Ceramic	AA
					C1420	VCCCCY1HH270J*	X	27p 50V Ceramic	AA
					C1421	VCCCCY1HH120J*	X	12p 50V Ceramic	AA
					C1422	VCCCCY1HH120J*	X	12p 50V Ceramic	AA
					C1423	VCCCCY1HH3R0C*	X	3p 50V Ceramic	AA
					C1424	VCCCCY1HH270J*	X	27p 50V Ceramic	AA
					C1425	VCCCCY1HH100D*	X	10p 50V Ceramic	AA
					C1428	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA
					C1435	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA
					C1436	VCKYCY1CF104Z*	X	0.1 16V Ceramic	AA
					C1439	VCE9GA1CW106M+X	10	16V Electrolytic	AB
					C1440	VCEA0A1HW106M+X	10	50V Electrolytic	AA
					C1441	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA
					C1442	VCFYFA1HA474J+	X	0.47 50V Mylar	AB
					C1443	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA
					C1444	VCKYCY1HB472K*	X	4700p 50V Ceramic	AA
					C1445	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA
					C1446	VCCCCY1HH181J*	X	180p 50V Ceramic	AA
					C1447	VCKYCY1HF103Z*	X	0.01 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code
PWB-C: DUNTKB573WEV0				
3-LINE Y/C UNIT (Continued)				
C1448	VCKYCY1CF104Z*	X 0.1	16V Ceramic	AA
C1449	VCKYCY1CF104Z*	X 0.1	16V Ceramic	AA
C1451	VCEA0A1CW107M+X	100	16V Electrolytic	AA
C1452	VCKYCY1CF104Z*	X 0.1	16V Ceramic	AA
C1453	VCKYCY1HF103Z*	X 0.01	50V Ceramic	AA
C1454	VCKYCY1HF103Z*	X 0.01	50V Ceramic	AA
C1455	VCKYCY1HF103Z*	X 0.01	50V Ceramic	AA
C1456	VCKYCY1CF104Z*	X 0.1	16V Ceramic	AA
C1457	VCEA0A1HW106M+X	10	50V Electrolytic	AA
C1458	VCEA0A1HW106M+X	10	50V Electrolytic	AA
C1460	VCKYCY1HF103Z*	X 0.01	50V Ceramic	AA
C1470	VCCCCY1HH270J*	X 27p	50V Ceramic	AA
C1474	VCCCCY1HH150J*	X 15p	50V Ceramic	AA

RESISTORS

R1402	VRS-CY1JF000J*	X 0	1/16W Metal Oxide	AA
R1405	VRS-CY1JF361J*	X 360	1/16W Metal Oxide	AA
R1406	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1407	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1410	VRS-CY1JF473J*	X 47k	1/16W Metal Oxide	AA
R1411	VRS-CY1JF223J*	X 22k	1/16W Metal Oxide	AA
R1412	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1413	VRS-CY1JF122J*	X 1.2k	1/16W Metal Oxide	AA
R1414	VRS-CY1JF331J*	X 330	1/16W Metal Oxide	AA
R1415	VRS-CY1JF391J*	X 390	1/16W Metal Oxide	AA
R1416	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1421	VRS-CY1JF471F*	X 470	1/16W Metal Oxide	AA
R1423	VRS-CY1JF152F*	X 1.5k	1/16W Metal Oxide	AA
R1426	VRS-CY1JF000J*	X 0	1/16W Metal Oxide	AA
R1428	VRS-CY1JF332J*	X 3.3k	1/16W Metal Oxide	AA
R1429	VRS-CY1JF222J*	X 2.2k	1/16W Metal Oxide	AA
R1430	VRS-CY1JF473J*	X 47k	1/16W Metal Oxide	AA
R1431	VRS-CY1JF223J*	X 22k	1/16W Metal Oxide	AA
R1432	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1433	VRS-CY1JF122J*	X 1.2k	1/16W Metal Oxide	AA
R1434	VRS-CY1JF331J*	X 330	1/16W Metal Oxide	AA
R1435	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1436	VRS-CY1JF331J*	X 330	1/16W Metal Oxide	AA
R1438	VRS-CY1JF222J*	X 2.2k	1/16W Metal Oxide	AA
R1456	VRS-CY1JF564J*	X 560k	1/16W Metal Oxide	AA
R1457	VRS-CY1JF103J*	X 10k	1/16W Metal Oxide	AA
R1458	VRD-RA2BE103J*	X 10k	1/8W Carbon	AA
R1459	VRS-CY1JF821J*	X 820	1/16W Metal Oxide	AA
R1466	VRS-CY1JF103J*	X 10k	1/16W Metal Oxide	AA
R1467	VRS-CY1JF682J*	X 6.8k	1/16W Metal Oxide	AA
R1473	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA
R1475	VRS-CY1JF102J*	X 1k	1/16W Metal Oxide	AA

BALUN

FB1401	RBLN-0061TAZZ*	X	Balun	AA
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MISCELLANEOUS PART

P1401	QPLGZ0810CEZZ	X	Plug, 8Pin	AB
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PWB-F: DUNTKB207WEA5
CONTROL UNIT(32F631 ONLY)**CAPACITOR**

C4001	VCEA0A1HW476M+X	47	50V Electrolytic	AB
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RESISTORS

R4001	VRD-RA2BE470J*	X 47	1/8W Carbon	AA
R4006	VRD-RA2BE822J*	X 8.2k	1/8W Carbon	AA
R4007	VRD-RA2BE822J*	X 8.2k	1/8W Carbon	AA
R4009	VRD-RA2BE183J*	X 18k	1/8W Carbon	AA
R4011	VRD-RA2BE183J*	X 18k	1/8W Carbon	AA
R4020	VRD-RA2BE750J*	X 75	1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code
SWITCHES				
S4001	QSW-KA003WJZZ+ X		Switch, POWER	AB
S4002	QSW-KA003WJZZ+ X		Switch, MENU	AB
S4003	QSW-KA003WJZZ+ X		Switch, VOL.-DOWN	AB
S4004	QSW-KA003WJZZ+ X		Switch, VOL.-UP	AB
S4005	QSW-KA003WJZZ+ X		Switch, CH-DOWN	AB
S4006	QSW-KA003WJZZ+ X		Switch, CH-UP	AB

MISCELLANEOUS PARTS

J4001	QJAKGA031WJZZ	X	Input-2 Jack	AC
P4001	QPLGN0641CEZZ	X	Plug, 6Pin(EJ)	AB
P4004	QPLGN0541CEZZ	X	Plug, 5Pin(KA)	
RMC4001	RRMCU0222CEZZ	X	Remote Receiver	AD

PWB-H: DUNTKB569WEV0
DF MODULE UNIT**INTEGRATED CIRCUIT**

IC1680	VHiKiA358P+-1	X	KIA358P	
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TRANSISTORS

Q1680	VS2SC5022//1E	X	2SC5022	
Q1681	VS2SC3198-G-1+	X	2SC3198-G	AB

DIODES

D1610	RH-DX0202CEZZ*	X	Diode	
D1681	RH-DX0475CEZZ*	X	Diode	
D1682	RH-DX0475CEZZ*	X	Diode	
D1683	RH-DX0475CEZZ*	X	Diode	
D1684	RH-DX0475CEZZ*	X	Diode	
D1686	RH-DX0487CEZZ*	X	Diode	AB
D1687	RH-EX0618GEZZ*	X	Zener Diode, 6.2V	
D1688	VHD1SS119//-1*	X	1SS119	AA

COILS

L1640	RCiLZA022WJZZ	X	Coil	
L1641	RCiLZA023WJZZ	X	Coil	
L1680	RCiLZA034WJZZ	X	Coil	AC
L1681	VP-DF8R2K0000*	X	Peaking, 8.2μH	AA

TRANSFORMER

△ T1680	RTRNZ0209PEZZ	X	Transformer	
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CAPACITORS

C1610	VCFYSB2EB224K	X 0.22	250V	
C1644	VCFPFA2EB684J	X 0.68	250V	AB
Metalized Polypro Film				
C1677	VCKYPA1HB391K+ X	390p	50V Ceramic	
C1678	VCKYPA1HB391K+ X	390p	50V Ceramic	
C1681	RC-KZ0024CEZZ	X 1000p	2kV	
C1682	RC-KZ0037CEZZ	X 390p	2kV	
C1683	VCE9GA1HW335M+X	3.3	50V Electrolytic	
C1684	VCEA0A1VW477M+X	470	35V Electrolytic	AB
C1685	VCFYFA1HA474J+ X	0.47	50V Mylar	AB
C1686	VCEA0A1VW108M+X	1000	35V Electrolytic	AB
C1687	VCEA0A1EW107M+X	100	25V Electrolytic	
C1695	VCFYFA1HA224J+ X	0.22	50V Mylar	AB

RESISTORS

R1610	VRS-VV3DB103J	X 10k	2W Metal Oxide	
R1627	VRS-KT3LB122J	X 1.2k	3W Metal Oxide	
R1656	VRD-RA2BE394J*	X 390k	1/8W Carbon	
R1657	VRD-RA2BE683J*	X 68k	1/8W Carbon	AA
R1658	VRD-RA2BE183J*	X 18k	1/8W Carbon	AA
R1659	VRD-RA2BE102J*	X 1k	1/8W Carbon	AA
R1680	VRS-KT3LB154J	X 150k	3W Metal Oxide	AB
R1681	VRS-KT3LB104J	X 100k	3W Metal Oxide	
R1682	VRC-MA2HG333K*	X 33k	1/2W Solid	
R1683	VRD-RA2BE332J*	X 3.3k	1/8W Carbon	AA
R1684	VRD-RA2BE681J*	X 680	1/8W Carbon	
R1685	VRS-VV3AB181J	X 180	1W Metal Oxide	

Ref. No.	Part No.	★	Description	Code
PWB-H: DUNTKB569WEV0 DF MODULE UNIT (Continued)				
R1686	VRD-RA2BE103J*	X	10k 1/8W Carbon	AA
R1687	VRD-RA2BE103J*	X	10k 1/8W Carbon	AA
R1688	VRD-RA2BE473J*	X	47k 1/8W Carbon	AA
R1689	VRD-RA2BE823J*	X	82k 1/8W Carbon	AA
R1690	VRD-RA2BE822J*	X	8.2k 1/8W Carbon	AA
R1691	VRD-RA2BE823J*	X	82k 1/8W Carbon	AA
R1695	VRD-RA2BE224J*	X	220k 1/8W Carbon	AA
R1697	VRD-RA2EE1R0J*	X	1 1/4W Carbon	AA
R1698	VRD-RA2BE472J*	X	4.7k 1/8W Carbon	AA
R1699	VRD-RA2BE562J*	X	5.6k 1/8W Carbon	AA

MISCELLANEOUS PARTS

P1602	QPLGN0741CEZZ	X	Plug, 7Pin(XA)	AB
P1603	QPLGN0161FJZZ	X	Plug, 6Pin(XB)	AB
P1604	QPLGN0157FJZZ	X	Plug, 2Pin(XC)	
RDA1680	PRDAR0135PEFW	X	Heat Sink for Q1680	
SG1681	QSPGH0025CEZZ	X	Spark Gap	

PWB-S: DUNTKB571WEV1
AUDIO UNIT**INTEGRATED CIRCUIT**

IC3501	VHiNJW1140G-1Y	X	NJW1140GK1	
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DIODES

D3501	RH-EX0619GEZZ*	X	Zener Diode, 6.2V	AB
D3502	RH-EX0619GEZZ*	X	Zener Diode, 6.2V	AB

CAPACITORS

C3501	VCQYTA1HM104J+	X	0.1 50V Mylar	AB
C3502	VCIFYFA1HA334J+	X	0.33 50V	AB
C3503	VCKYCY1HB822K*	X	8200p 50V Ceramic	AA
C3509	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3510	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3511	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3512	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3513	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3514	VCEA0A1CW476M+X	47	16V Electrolytic	AA
C3515	VCKYCY1HB103K*	X	0.01 50V Ceramic	AA
C3531	VCQYTA1HM104J+	X	0.1 50V Mylar	AB
C3533	VCKYCY1EB223K*	X	0.022 25V Ceramic	AA
C3539	VCIFYFA1HA334J+	X	0.33 50V Mylar	AB
C3540	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3541	VCEA0A1HW105M+X	1	50V Electrolytic	AA
C3694	VCE9GA1HW475M+X	4.7	50V Electrolytic	AB
C3695	VCE9GA1HW475M+X	4.7	50V Electrolytic	AB

RESISTORS

R3501	VRS-CY1JF472J*	X	4.7k 1/16W Metal Oxide	AA
R3502	VRS-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R3531	VRS-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R3532	VRS-CY1JF221J*	X	220 1/16W Metal Oxide	AA
R3533	VRS-CY1JF221J*	X	220 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

P3004	QPLGN0242CEZZ	X	Plug, 2Pin(TP3001-3002)	AA
P3006	QPLGZ0610CEZZ	X	Plug, 6Pin	AB
P3007	QPLGZ0610CEZZ	X	Plug, 6Pin	AB

Ref. No.	Part No.	★	Description	Code
MISCELLANEOUS PARTS				
SP1, SP2	VSP1206PB648A	X	Speaker(32F631)	AG
SP1, SP2	VSP1206PB708A	X	Speake(32F630)	AH
	QCNW-A475WJZZ	X	Connecting Cord(32F631)	AC
	QCNW-B174WJZZ	X	Connecting Cord(32F630)	AD
	QCNW-B175WJZZ	X	Connecting Cord	AC
	QCNW-B176WJZZ	X	Connecting Cord	AC
	QCNW-B177WJZZ	X	Connecting Cord	AC
	QCNW-B178WJZZ	X	Connecting Cord	AE
	QCNW-B179WJZZ	X	Connecting Cord	AC
	QCNW-B240WJZZ	X	Connecting Cord(32F631)	AE
	QCNW-B241WJZZ	X	Connecting Cord(32F631)	AB

SUPPLIED ACCESSORIES

RRMCGA108WJSA	X	Infrared R-C Unit	
TiNS-A583WJZZ	X	Opearation Manual(32F630)	AE
TiNS-A660WJZZ	X	Opearation Manual(32F631)	AE
TGAN-0001GJZZ	X	Guarantee Card	AB

PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKCA474WJZZ	-	Packing Case(32F630)	—
SPAKCA590WJZZ	-	Packing Case(32F631)	—
SPAKP0110GJZZ	-	Wrapping Paper	—
SPAKX0131GJZZ	-	Buffer Material(32F631)	—
SPAKXA190WJZZ	-	Buffer Material(32F630)	—
SSAKA0101GJZZ	-	Polyethylene Bag	—

Ref. No.	Part No.	★	Description	Code
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CABINET PARTS

32F630

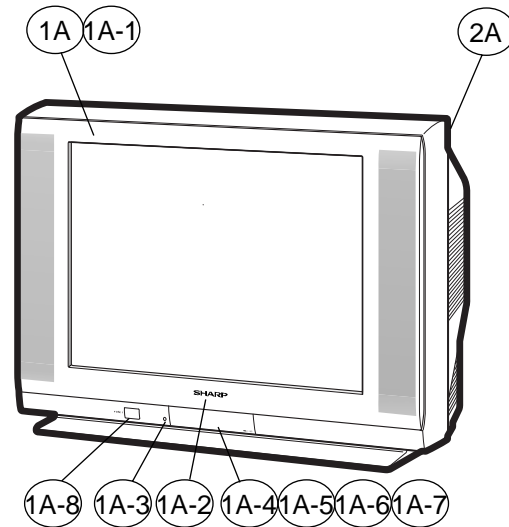
1A	CCABAA208WEH0	X	Front Cabinet Ass'y	BF
1A-1	Not Available	-	Front Cabinet	
1A-2	HBDGB3141CESA	X	Badge	AD
1A-3	GCOVAA343WJSA	X	Cover	AC
1A-4	GCOVHA017WJKZ	X	Cover	AD
1A-5	GDORFA034WJKA	X	Door	AE
1A-6	HiNDPA311WJSA	X	Indicator	AC
1A-8	JBTN-A119WJKA	X	Button	AC
1A-7	MSPRPA012WJFW	X	Spring	AB
2A	GCABBA138WJKA	X	Rear Cabinet	

32F631

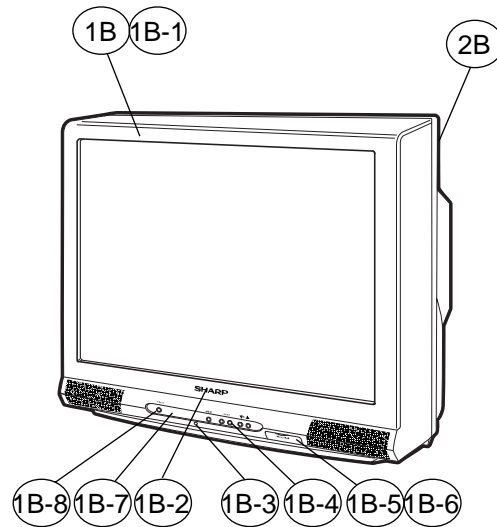
1B	CCABAA294WEH0	X	Front Cabinet Ass'y	
1B-1	Not Available	-	Front Cabinet	
1B-2	HBDGB3141CESA	X	Badge	AD
1B-3	HDECQ0105GJKA	X	Decration Plate	AF
1B-4	JBTN-0128GJKA	X	Button	AC
1B-5	GDORF0105GJKC	X	Door	AE
1B-6	HiNDPA433WJSA	X	Indicator	AC
1B-7	HDECQ0104GJKA	X	Decration Plate	AF
1B-8	JBTN-0129GJKA	X	Button	AB
2B	GCABB0160GJKB	X	Rear Cabinet	

Ref. No.	Part No.	★	Description	Code
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CABINET PARTS LOCATION

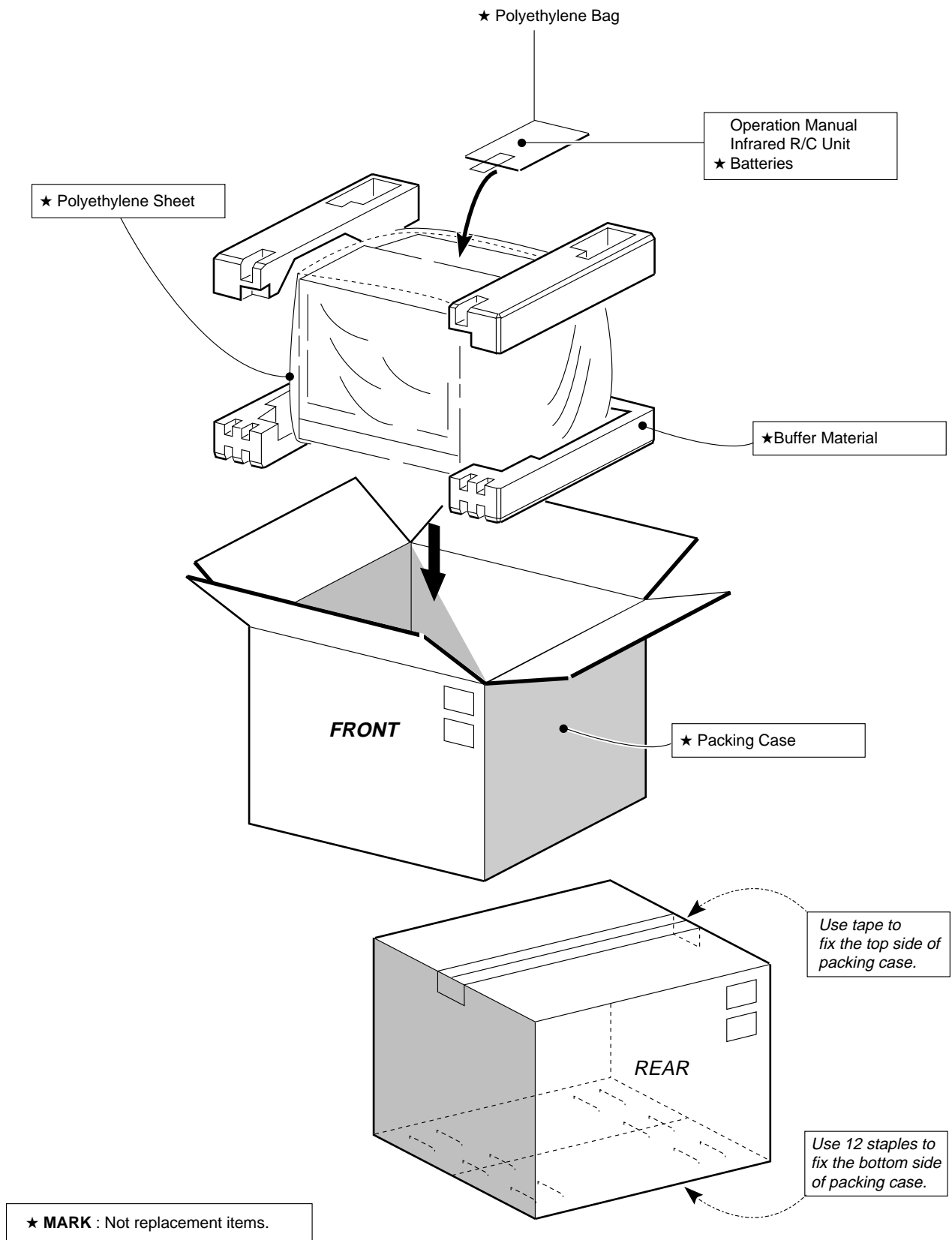


32F630



32F631

PACKING OF THE SET



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TQ -S
Apr. 2003 Printed in Japan
In Japan gedruckt

Design and Production Information

Design :
Production :

MY. DS

SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan